

EARTH TONES: HOW ENVIRONMENTAL JOURNALISM AND ENVIRONMENTAL
ETHICS INFLUENCE ENVIRONMENTAL CITIZENSHIP

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Environmental ethics and environmental journalism are influencing the developing philosophy of environmental citizenship. This philosophy involves the ideas that people are part of the environment, that the future depends on a healthy environment, and that action on behalf of the environment is necessary. It applies to individuals, communities, large and small companies and corporations, governments, and a coalition of nations. Environmental philosophers and environmental journalists can work together, in a symbiotic way, to foster discussions among citizens and policy makers about ideas as well as events, and thus, influence attitudes and policies, and continue to influence environmental citizenship. Environmental citizenship as an extension of democracy offers the best chance for undoing the manmade problems which are degrading the quality of life on Earth. A healthier environment is the will of the people. An informed, voting public will succeed in creating a healthier environment. Pioneering work by philosophers and journalists, especially over the last forty-five years has brought the dialogue about environmental problems to an unprecedented level and continues to offer encouragement to the mindful evolution of mankind. These ecological discussions of rights and responsibilities, intrinsic and economic values, pragmatism and utilitarianism, culture and spirit, are increasingly being applied to a developing idea of sustainability, and are, thus, helping to expand ideas about what it means to be a citizen in a democracy.

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CHAPTER 1

CONCURRENT HISTORY

Earth Tones

The historical confluence of three developing fields, the changing culture of the environmental movement, the expanding foundational field of environmental ethics and the development of the specialized skills of environmental journalism is influencing a new cultural philosophy called environmental citizenship.

Environmental citizenship should be based on three principles. The first principal, that human beings are a part of nature, was voiced by the US forester, Aldo Leopold, in his classic essay, *The Land Ethic*.

A land ethic changes the role of Homo sapiens from the conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.¹

A second principal, that survival in the future depends upon a healthy environment, became the motivation for Rachel Carson's seminal work, *Silent Spring*.

It was a spring without voices. On the mornings that had once throbbed with the dawn chorus of robins, catbirds, doves, jays, wrens, and scores of other bird voices there was now no sound; only silence lay over the fields and woods and marsh. On the farms the hens brooded, but no chicks hatched. The farmers complained that they were unable to raise any pigs – the litters were small and the young survived only a few days. The apple trees were coming into bloom but no bees droned among the blossoms, so there was no pollination and there would be no fruit. ... Even the streams were now lifeless. Anglers no longer visited them because all the fish had died. In the gutters under the eaves and between the shingles of the roofs, a white granular powder still showed a few patches; some weeks before it had fallen like snow upon the roofs and the lawns, the fields and streams. No witchcraft, no enemy action had silenced the rebirth of new life in this stricken world. The people had done it themselves.²

¹ Aldo Leopold, "The Land Ethic," *A Sand County Almanac with Essays on Conservation from Round River* (New York: Ballantine Books, 1970), p. 240.

² Rachel Carson, *Silent Spring* (Boston: Houghton Mifflin Company, 1962), pp. 2-3.

The third principal calls on citizens to take action on behalf of environmental integrity. Such action may include civil disobedience, but it will be most noticeable as citizens exercise their power at the ballot box, where citizens take on the responsibility to support legislation to preserve, protect and sustain the environment. This idea is in line with the thinking of the Founding Fathers of the American democracy. Their embodiment of the spirit of the American Revolution caused actions which led to independence and freedom. As Thomas Jefferson once wrote in a letter to James Madison, “A little rebellion...is a medicine necessary for the sound health of government.”³

Environmental philosophers and environmental journalists are working together, though not necessarily collaborating, to foster discussions among citizens and policy makers about ideas as well as events, and thus, influence attitudes and policies, and continue to influence environmental citizenship.

Environmental citizenship as an extension of democratic principles offers the best chance for undoing the man-made problems which are degrading the quality of life on Earth. Basically, environmental citizenship can change the world. An informed, voting public can succeed in creating a healthier environment, by electing leaders who support the principals of environmental citizenship. In all likelihood, the US presidential candidates of 2008 will use language that equates with environmental citizenship. Based on the amount of press coverage the environment and global warming is now getting, the environment will be an important presidential issue.

Pioneering work by philosophers and journalists, especially over the last forty-five years has brought the dialogue about environmental problems to an unprecedented level and continues to offer encouragement to the mindful evolution of mankind.

³ Bergen Evans, *Dictionary of Quotations* (New York: Avenel Books, 1968), p. 377.

These ecological discussions of rights and responsibilities, intrinsic and economic values, pragmatism and utilitarianism, culture and spirit, are increasingly being applied to a developing idea of sustainability, and are, thus, helping to expand ideas about what it means to be a citizen in a democracy.

The title *Earth Tones* refers to the aesthetics of the natural colors of the Earth, the audio and video test patterns of television, the sounds and images of nature itself, as well as the *tone* of voice, one uses when one feels certain about something.

I am writing this thesis as a professional journalist, a developing philosopher, and an experienced naturalist. I have made a living by writing and producing stories about science and the environment for radio, television, newspapers, and magazines for thirty years. I began studying environmental ethics in 1999, with virtually no prior background in philosophy. My interest in environmental philosophy, as a topic for study, developed during the time that I worked as the environmental reporter at WFAA-TV, the American Broadcasting Corporation's (ABC) affiliate in Dallas/Fort Worth, about forty miles from the University of North Texas, home to the internationally regarded Center for Environmental Philosophy.

In addition to my commitments to environmental journalism, and environmental philosophy, I had earlier earned a bachelor's degree in marine science in 1975. The blending of these studies in science, journalism, and environmental ethics have given me a peculiar view of more than forty years of growth and change within the environmental movement. I've heard that a journalist's knowledge is sometimes described as "a mile wide and an inch deep." Over the years, I have approached science and environmental journalism much like a person on a raft, sometimes floating, sometimes paddling against the currents of this turbulent confluence of tress, the three rivers of ideas, news, and change.

Throughout this thesis I tell personal stories, which I believe are relevant to my own development as an “environmental citizen.” I hope the reader does not regard these stories merely as an exercise in ego gratification. During my career, I have used the tools of print and broadcast journalism to tell hundreds of stories that promote the concept of “environmental citizenship” to millions of people. My personal story is just one more. I hope the readers of this thesis see something of themselves, and find common ground with some of these experiences, and begin to think of themselves as environmental citizens.

In the present chapter, I write a brief history of the turbulent times in America during the 1960s and the 1970s. War, threats, the civil rights movement, idealism, and a new focus on science unfolded for millions of Americans on their television sets, which caused a collision of consciousness, national disharmony, and the vocal calls for change.

President Kennedy promised a new beginning, a new frontier, full of hope. The country needed it after enduring two world wars, the Korean conflict, the Great Depression, and the new global threat of the spreading of Communism. His words echoed with themes of freedom, rights and responsibilities, and a desire that world peace could be achieved. The space race showcased the scientific revolution which had been at work since World War II. People began paying attention to the ramifications of unchecked science when they read Rachel Carson’s *Silent Spring*, which was first published as a series of articles in the *New Yorker* magazine. The widespread influence of television came along at the same time. While assassinations, violence during the civil rights movement, and the Vietnam War were televised in our living rooms, the wonders and aesthetics of nature, on shows like Jacques Cousteau’s served as a valuable counterpoint. In a sense, nature and peace became the antidote, the alternative to war and violence.

President Nixon pragmatically turned the public's attention away from the international crisis of the war, and towards domestic issues, such as clean air and clean water. Citizens, who had been marching against the Vietnam war were joining a growing environmental movement, which became a cultural phenomenon on Earth Day in 1970.

At the same time, philosophers, who had been challenging accepted notions that ideas and emotions are without practical value, began applying some of their thoughts towards issues about the environment, and the field of environmental ethics was born. The principal founders of environmental ethics discovered the foundations of their thoughts in the writings of a US forester, Aldo Leopold, who recognized that the practices of the US government, to take all the resources, and leave nothing for regeneration, were creating a barren wasteland, and that a more balanced, selective approach to resource recovery would allow for sustainability.

In chapter two I first show that the philosophical roots which gave rise to the notion of man's dominion of nature also contain the earliest ideas about stewardship and the importance of living with nature. These philosophers were learning how protecting nature could mean protecting ourselves. That notion had been dismissed by early Western philosophers such as Sir Francis Bacon and Rene' Decartes, who considered livestock and wild animals to be mere machines, without feelings, placed on the Earth simply for man's use. In 1967, Lynn White, Jr. laid the blame for the entire environmental crisis on the Judeo-Christian tradition for its notion of dominion.

Second, I explain how separating the idea of "home" from nature is a ruinous mistake. The chapter introduces the idea of ecology, the sense that man and his environment are interrelated and dependent on each other. The science of ecology has also evolved, from a notion that discounted the impact of man, and showed how a forest evolved to a climax state and

then, without disturbance would stay that way. More commonly, now it is believed that any disturbance in the environment, whether caused by man or nature, begins a process of often irrevocable change.

Third, I take a closer look at the spirit of nature, a concept which entangles myth, the mystery of life, and the concept of God, and plays a big role in the way people perceive nature, and its importance. I focus on some of my own personal experiences with nature, exploring why these experiences hold significance in terms of my own particular way of looking at the world, and have inspired my own sense of environmental citizenship. My own experiences have helped me to see how Native American beliefs corresponded with real occurrences, the stampede of a buffalo herd, the yearly cycles of grass growing, the obvious seasonal changes, the presence of clouds, and the thunderous nature of severe weather.

Other philosophies about the existence of the Earth are also explored, such as the Gaia philosophy, which has come to symbolize the notion that the entire Earth is a living and breathing organism, and that we are simply bit players that exist as a part of that organism. Feminism and the philosophy of women also play key roles in the development of spiritual notions of the Earth, as the cultural mistreatment of women is related to the cultural mistreatment of the planet.

Citizens are often praised for their sense of duty to God and country. When people interact directly with nature, they are often awed by both. Believers in God who have direct contact with nature inevitably view nature as God's handiwork.

In chapter 3 I define *environmental citizenship* as a multi-pronged approach to life. It deals with rights and responsibilities. It challenges citizens to take action and in return earn a certain satisfaction that environmental progress is being made. In most cases, that progress is

considered good for the community. Although, there are some environmental terrorists committing criminal acts of destruction, which threaten human life. There are some members of the business community, and the government, who believe action taken to protect the environment threatens free enterprise and hurts the economy. The roles of environmental ethics and environmental journalism are critical to this process. The philosophers continue to define what environmental citizenship is and the journalists spread the word to millions of people, readers, listeners and viewers, and those people tell other people, and mass communication takes place. Environmental citizenship transcends boundaries; it transcends governments; it spreads from individuals to communities, to villages, to states and to nations. From a journalistic point of view the story is fascinating, because it is not simply a science or an ecological story; it is also a business story, a cultural story, a community story. Just within the last ten years, most substantial companies have made the decision to change industrial processes to reduce pollution, reduce and reuse raw materials, and find ways to save energy. These corporate decisions, which were considered too costly in the past, are now proving to be cost effective. In addition, new green building construction is saving millions of dollars in building materials and energy savings. Of course, environmental citizenship can be as simple as recycling the bottles and cans from the trash heap, and replacing old lights with compact fluorescent bulbs.

In chapter 4 I outline how spreading the news about environmental citizenship can save the world. Journalism schools are now teaching Science and Environmental Reporting. Organized panels are bringing scientists and journalists together to talk about better ways to communicate new ideas about important topics such as global warming. There are serious debates about the role of advocacy in journalism, and the importance of spreading free, clear, balanced and fair information. Environmental philosophy continues to play a major role, as

some of the world's best thinkers discuss and debate what is happening versus what ought to be happening. News organizations, which in recent years, have downgraded environmental news and reporting, are now forced to put it on the front pages once again, and include it on the evening news programs. The will of the people demands the coverage. Scientists, environmentalists, environmental philosophers and environmental reporters are making this happen. The environmental citizen is not an environmental whacko living on the fringe. He or she is a responsible citizen, guided by rights and responsibilities and the will to live a free and healthy life.

I conclude with the idea that environmental citizenship can be normal and accepted behavior within our culture and our society. Reaching this point will require a paradigm shift, which basically alters many of the thoughts and ideas about the economics of profit and loss that have driven the industrial age. I do not consider environmental citizenship to be anti-business or anti-progress. The philosophy simply incorporates environmental ethics into the decision making process. Environmental reporters continue to write the success stories of entities which adopt the principles of environmental citizenship.

The Sixties: Idealism Murdered

At the dawn of the 1960s, that time of great, global fear of World War III, and the potential of nuclear annihilation brought on by the Cold War, and the nuclear warhead standoff between the Soviet Union and the United States, President John F. Kennedy, during his inaugural address, January 20, 1961, said, "Together let us explore the stars, conquer the deserts, eradicate disease, tap the ocean depths, and encourage the arts and commerce."⁴

⁴ President John F. Kennedy, 20 January 1961 on the steps of the Capitol, Washington, D.C.; available at <http://www.Bartleby.com/124/press56.html-29k>.

Science journalism had literally launched itself onto the public scene, as an increasing number of television viewers watched the coverage of the space program. The interest in space had been sparked when the Soviet satellite, Sputnik, orbited the Earth in 1958, igniting a dangerous competition for military superiority between the United States and the Soviet Union, as both sides continued to build their nuclear arsenals.

In 1958, President Eisenhower explained how he believed the *free world* and the will of democratic citizens was at stake.

What makes the Soviet threat unique in history is its all-inclusiveness. Every human activity is pressed into service as a weapon of expansion. Trade economic development, military power, arts, science, education, the whole world of ideas. The Soviets are, in short, waging total cold war.⁵

With the beginning of the Kennedy administration, the “space race”⁶ was born. On April 12, 1961, Flight Major Yuri Gagarin of the Soviet Union became the “Columbus of the Cosmos,” the first man in space, by making a single orbit of the Earth in his spacecraft Vostok 1.⁷ On May 5, 1961, Alan Shepard became the first American to fly into space. On February 20, 1962, John Glenn piloted the Friendship 7 Mercury spacecraft and became the first American astronaut to orbit the Earth.⁸

ABC’s science correspondent, Jules Bergman became as well known to some television viewers as the famous Walter Cronkite, the news anchor, who also covered space for CBS. President Kennedy said, “We have a long way to go in the space race. We started late. But this is the new ocean, and I believe the United States must sail on it and be in a position to be second

⁵ “Space Race,” an exhibition at the Smithsonian National Air and Space Museum (President Dwight D. Eisenhower, 1958), available at <http://www.nasm.si.edu/exhibitions/gal1114/gal1114.htm>.

⁶ Ibid.

⁷ Available at <http://www.century-of-flight.freeola.com/Aviation%20history/space/Astronauts%20and%20Cosmonauts.htm>.

⁸ Available at <http://www.jsc.nasa.gov/Bios/htmlbios/glenn-j.html>.

to none.”⁹

That President Kennedy referred to the ocean is not surprising. He found thoughtful peace and solitude when sailing in the waters of Narragansett Bay of Cape Cod. This was the same man that my parents and a generation of Irish Catholics in Massachusetts called Jack, the same man, my mother and father, my grandfather, my sister and I, met at Hyannis Airport, on Cape Cod, the night he flew back from California, after winning the Democratic nomination for President of the United States. As reporters and photographers fought for space in the middle of the fence, we ventured down to one end of the crowd, and the future president decided to come to where we were to shake hands and say thanks. Mom got a kiss in. Dad shook his hand. I got a pat on the head.

We had a special love for President Kennedy. Like the president, our family spent summer vacations on Cape Cod, and when he called on us to embrace our citizenship, by saying, “Ask not what your country can do for you. Ask what you can do for your country,” we listened, and believed he was talking directly to us.¹⁰

As much as anything else the president said, that cold, snowy Friday, on the steps of the Capitol, his inspiring words provided a promising wake up call to parents and their offspring, the Baby Boomers, those children born after World War II. These, mostly white families were moving to the suburbs. Kennedy’s was a call to adventure, and to public service. After decades of world wars, the New Frontier would strive for peace, security, and safety, even providing a citizen army called the Peace Corps.

⁹ Ibid.

¹⁰ President John F. Kennedy (20 January 1961 on the steps of the Capitol, Washington, D.C.); available at <http://www.Bartleby.com/124/press56.html-29k>.

In the confines of our suburbs, it was easy to overlook the growing military commitment in Vietnam. Then, the assassination of that President of promise, in 1963, in Dallas, Texas, shattered the Camelot dream, especially for the adults, many of whom had experienced two World Wars and Korea.

After the tragedy, it seemed that the Baby Boomers, themselves, those who had not reached the age of disillusion, had been inspired enough by Kennedy, to keep that eternal flame flickering in that cold, ocean gale of national depression. The Baby Boomers, the resilient youth of America, would not immediately turn back to the old ways. Our generation would be citizens of action. For myself, then ten years old, and millions of other young Americans, the beginnings of the counterculture, which included the environmental movement, began with the public life and death of a President, primarily because we watched it unfold on TV.

It is not surprising that the television coverage of the Kennedy assassination also marked the beginning of a new era in the history of television news, made possible by an explosion of sustained technology, the true beginning of the information age.

AOL offers its members a copy of an article which supports the idea that television news had supplanted the newspaper as the principal source of information, and that its reach was global in nature. Here is an excerpt of the article, which appeared in *TV Guide*, January 25, 1964, "How Television Covered the Kennedy Assassination."

For television it was a beginning, too. For if nothing else had happened during the Four Days, the medium had gained a new sense of what it could do, if pressed. Moreover, it had shown that it did indeed deserve to be called, as Ron Cochran (ABC News) had put it, the window of the world. And that the window was capable of encompassing not just life's trivia, but the deepest of human experiences.¹¹

¹¹ "America's Long Vigil: How Television Covered the Kennedy Assassination," *TV Guide*, 25 January 1965; available at <http://members.aol.com/jeff570/tvgjfk.html>.

Barely three months after the Kennedy assassination, on February 9, 1964, The Beatles laid down the new soundtrack of a generation, starting with their first television appearance on *The Ed Sullivan Show*. A generational war of ideas had begun. Later in the decade, the marines, the soldiers, and the sailors of the Vietnam War would be victimized by a lack of support by their own government and the citizens at home. The troops had endured horrific conditions in Southeast Asia, and when they returned, they would be treated more like villains than heroes, or they were simply pushed aside. Citizens were marching, challenging President Johnson and then Nixon, and the military establishment to embrace peace. Our parents were a generation of war, but ours would be a generation of peace, as naïve and idealistic as that may sound today.

The 1960s witnessed a historic exercise of freedom and democracy, endorsing the American tradition of civil disobedience and protest. The news media covered all of this with great enthusiasm, which spurred more civic awareness and fanned the fires of discontent. Like many Americans, I watched it all on television, every minute I could. The Kennedy murder and funeral coverage, the marches and the violence associated with the Civil Rights Movement in the American South, the civil unrest on college campuses and at political conventions, and Vietnam War protests all contributed to a milieu of dissatisfaction.

Every night the *CBS Evening News with Walter Cronkite*, and NBC's *Huntley/ Brinkley Report* carried gripping stories from the front lines, including body counts, and horrific film. The reality of the war struck close to home. One day, I learned that the neighbor boy who used to deliver newspapers to us had been killed in Vietnam. He was just a few years older than we were.

Collectively, a large number of young Americans had tuned in for the *Smothers Brothers Comedy Hour* and *Rowan and Martin's Laugh-In*, turned on to marijuana, LSD, rock and roll,

and tuned out the real world. America was numb, stoned, and yet, vibrantly alive.

Martin Luther King Jr., the great champion of the Civil Rights Movement was shot and killed in Memphis. Then, Bobby Kennedy, who supported human rights and was a candidate for the presidency, was murdered in California. People became aware of our vulnerabilities, and that included a sense that the planet was in danger, that overpopulation would drain global resources, nuclear radiation would poison us, industrial pollution was making the air unsafe to breathe, and industrial discharges were destroying the integrity of our rivers and streams.

Phillip Shabecoff, who reported for *The New York Times* for more than thirty years, nearly half that time covering the environment, wrote in his book, *A Fierce Green Fire*, “The American people, demonstrating the power of a democracy to address a social crisis, started taking matters into their own hands. The time had come to save ourselves.”¹²

Shabecoff believes that the environmental movement grew out of fear, “fear of cancer or other diseases caused by toxic substances, fear for the future of their children, and fear that the value of their property would be diminished by pollution or inappropriate development.”¹³

The power of the American free press has a long tradition of inspiring citizen action. In the early 1900s, journalists who became known as the muckrakers called for social and industrial reform. One book, *The Jungle*, published in 1906 by Upton Sinclair, about the brutal conditions in the Chicago stockyards, “aroused great public indignation and led to reform of federal food inspection laws.”¹⁴ Even the formation of the republic, the American Revolutionary War proved that citizens taking action get results.

¹² Philip Shabecoff, *A Fierce Green Fire* (New York: Hill and Wang, 1993), p. 113.

¹³ Ibid., p. 119.

¹⁴ *The Columbia Electronic Encyclopedia*, 6th ed., Columbia University, 2007, available at <http://www.infoplease.com/ce6/people/A0845339.html>.

Silent Spring Makes Noise

Rachel Carson dedicated *Silent Spring*, published in 1962, to Albert Schweitzer who said, “Man has lost the capacity to foresee and to forestall. He will end by destroying the earth.”¹⁵ Carson was a committed scientist and writer, who proved her environmental citizenship by instigating another revolution, as described by Carson’s biographer, Linda Lear, in the introduction to the fortieth anniversary edition of *Silent Spring*.

Carson’s thesis that we were subjecting ourselves to slow poisoning by the misuse of chemical pesticides that polluted the environment may seem like common currency now, but in 1962 *Silent Spring* contained the kernel of social revolution. She had set in motion a course of events that would result in a ban on the domestic production of DDT and the creation of a grass-roots movement demanding protection of the environment through state and federal regulation. Carson’s writing initiated a transformation in the relationship between humans and the natural world and stirred an awakening of public environmental consciousness.¹⁶

Edward O. Wilson, winner of two Pulitzer Prizes, and a distinguished naturalist who identified a new field called conservation biology, wrote in the afterward of the fortieth anniversary edition, how *Silent Spring* inspired citizens to take action on behalf of the environment.

The Carson ethic spread to other countries and to other venues within each country. It is not possible exactly to assess the full influence of *Silent Spring* on American environmentalism. The book’s message was blended with other scientific and literary efforts and folded into the growing activist movement, which as drawn from multiple social and political agendas. In immediate impact, it accelerated the resistance to chemical pollution that is all but universal today—in word if not always in deed. *Silent Spring* also became a national political force, largely responsible for the establishment of the Environmental Protection Agency in 1970.¹⁷

Carson grew up on the banks of the Allegheny River, just north of Pittsburgh, wrote stories as a child, studied biology English in college, spent summers doing marine science research at the Woods Hole Oceanographic Institute on Cape Cod, and wrote articles about the

¹⁵ Carson, *Silent Spring*, unnumbered page.

¹⁶ Linda Lear, introduction to *Silent Spring, 40th Anniversary Edition* (Boston: Mariner Books, 2002), p. x.

¹⁷ Edward O. Wilson, afterword to *Silent Spring, 40th Anniversary Edition*, p. 361.

Chesapeake Bay for the *Baltimore Sun*. “Carson realized that she did not have to choose between science and writing, that she had the talent to do both.”¹⁸

According to Carson’s biographer, Linda Lear, Rachel Carson’s mother, Maria, a musician, professed allegiance to the nature-study movement, which had its origins in natural history and theology.¹⁹ Nature study was popularized by botanists Liberty Hyde Bailey and Anna Bostford Comstock at Cornell University to cultivate a childlike love of the beautiful. Bailey once said, “Science may eventually explain the world of how. The ultimate world of why may remain for contemplation, philosophy and religion.”²⁰

The American Nature Study Society, founded in 1908, put a strong emphasis on experience-based education. Its slogan is “leading the way to the future through environmental education,”²¹ and its key to the future appears on its Website:

The future of America and humanity rests upon the bedrock of the natural world. The experience and understanding of that world are foundations for environmental literacy and wise decision-making about many critical problems.²²

On a long sea voyage to New Zealand in 1914, Bailey wrote *The Holy Earth*. He described it not as a nature-study manual nor a “rhapsody on the beauties of nature, but a questioning of man’s basic relation to the Earth and to his fellow man.”²³ Bailey’s biography states that “it summed up Bailey’s philosophy-that a righteous use of the vast resources of the Earth must be founded on religious and ethical values.”²⁴

Lear writes that *Silent Spring* lays out its case with “a strong dose of Calvinistic responsibility and civic obligation. Her thesis, however self-righteous in tone, reveals an inner

¹⁸ Lear, “Introduction,” Carson, *Silent Spring*, p. xii.

¹⁹ Linda Lear, *Rachel Carson: Witness for Nature* (Henry Holt and Company, 1997); available at <http://www.washingtonpost.com/wp-srv/style/longterm/books/chaps1/rachelcarson.htm>.

²⁰ Linda Lear; available at www.brainyquote.com/quotes/authors/liberty_hyde_bailey.html-19k.

²¹ *American Nature Study Society*; available at <http://hometown.aol.com/anssonline/>.

²² Ibid.

²³ Available at <http://www.bsp.msu.edu/Background/BaileyBio.cfm>.

²⁴ Ibid.

discipline, and strong social conscience.”²⁵

So, to some degree influenced by *Silent Spring*, Americans, especially young Americans on college campuses, began to see how “Better Things for Better Living Through Chemistry,”²⁶ along with unregulated growth, and horrible examples of air and water pollution in their own communities, threatened the idea of the American way of life. The environmental movement began to strengthen, along with the powerful Civil Rights, Anti-War, Peace and Feminist Movements, as touchstones in the United States, during that troubled time.

Diving with the Captain

In 1966, the American television audience was introduced to the World of Jacques-Yves Cousteau, followed by *The Undersea World of Jacques Cousteau*, which stayed on the air until 1976. Cousteau died June 25, 1997, at the age of 87. It was reported that French President Jacques Chirac mourned Cousteau as an enchanter, a legend who “represented the defense of nature, modern adventure, invention of the possible.”²⁷ Ted Turner, then vice chairman of Time Warner, which owns CNN wrote: “I think Captain Cousteau might be the father of the environmental movement.”²⁸ Cousteau’s influence on the Baby Boomers was widespread and profound.

I went to Southampton College of Long Island University in 1971 to become an oceanographer, to explore the depths of the unknown ocean, I imagined, just like Jacques-Yves Cousteau. My life was typical of Baby Boomers who did not go to war in Vietnam. I was not

²⁵ Lear, available at www.brainyquote.com.

²⁶ The Dupont company slogan was created in 1935. “Through Chemistry” was dropped in the 1980s. “The Miracles of Science” replaced the slogan in 1999. Available at http://heritage.dupont.com/touchpoints/tp_1939/overview.shtml.

²⁷ Available at <http://www.cnn.com/WORLD/9706/25/coustau.obit/index.html>.

²⁸ Ibid.

especially worried about being drafted. My draft number was 106, during the last year of the draft. I had absolutely no interest in joining the military, although some of my classmates did volunteer and saw action in Vietnam, and I supported them. Politically, I supported the anti-war movement, the civil rights movement, and the environmental movement. I thought I wanted to be a scientist. Organic chemistry and physics taught me that I wanted to be a writer. It occurred to me that a good scientist learns more and more about less and less. I wanted to know more and more about a lot of things, and I wanted to share what I learned through writing and having my work published, first in the college newspaper, then in the local *East Hampton Star*.

As a junior, I told my college adviser that I was on course to complete the required courses to graduate with a Bachelor of Science in marine science and a Bachelor of Arts in English. He didn't see too much value in such a limited emersion in two completely different fields. When I told him, I wanted to write about science, he reluctantly supported my academic plan.

It later occurred to me that, while Jacques Cousteau was indeed a scientist—he is credited with co-inventing the aqualung with Emile Gagnan in 1943—he was also an adventurer, exploring the great unknown, and he was a great filmmaker. It was his films about the undersea world that had inspired me to care about the fragility of certain ocean ecosystems, and the condition of the planet, and what we came to call the environment. In a reprint of *Silent World*, first published in 1950, Cousteau's son, Philippe, commented on the ideas behind his father's filmmaking, ideas which he shared with the world. Philippe's letter is entitled, "Dear Friends."

In their journey, they passed through life zones, each tenuously balancing infinitely varied organisms within a kaleidoscope of color, and sometimes no color at all. They learned to see with new eyes, as they probed this mysterious liquid world. They tested, they filmed, they faced danger, they explored. Through it all, they retained their sense of wonder. They accepted the ocean as an adventure, as a surprise. They began to re-form

their land based experience and to see the potential of this silent place, and what lay within it.²⁹

It turned out that I was drawn to the exploration of the unknown and documenting it on film and video for similar reasons, for the wonder, the adventure, the beauty and the surprise. Years later, as my career in broadcast environmental journalism developed, as a producer for ABC News, I experienced the realization that I had actually come closer to doing what Jacques Cousteau did, than I ever would have, if I had taken more science classes, spent more time in laboratories and gone to graduate school in, say, marine biology.

In 1978, I began working with the first of the network correspondents to specialize in animals and the environment, Roger Caras, a prolific writer, animal rights advocate and naturalist, who would later go on to be the president of the American Society for the Prevention of Cruelty to Animals. I began working with Caras as a research assistant, then became a television/radio writer, and ultimately became his television producer at ABC News. It became clear to me that Caras had a strong sense of animal rights ethics, which he included in many of his stories. He also wrote books about wild animals in their habitats and the interaction between species, including man. He gave me my first copy of *A Sand County Almanac* by Aldo Leopold. I brought a strong sense of ecocentric rights ethics, which complemented his strong animal rights stance.

The Caras/Wall teamwork produced some of the first national television stories about global deforestation, critical habitat for endangered species, and animal rights in the early 1980s. In 1981, as far as I know, we were the first television team to document the butterfly migration to Mexico (National Geographic had previously done it in print twice). In the butterfly story we used an on-camera interview with a research biologist, Lincoln Brower, one of the world's

²⁹ Phillipe Cousteau, introduction to Jacques-Yves Cousteau, *Silent World* (New York: Ballantine Books 1953).

experts on the migration, who described the spectacle of millions of monarchs in purely aesthetic terms, by saying, “It is to natural history what the Mona Lisa is to art.”³⁰ Caras and Wall went to China to report on giant pandas, to Africa to film stories about endangered rhinos, and to Sri Lanka to document wild and domesticated elephants and a vanishing tribe of indigenous people, called the Veddha. These extraordinarily visual stories, which related ecological and environmental concepts to a mass audience, were strongly supported by ABC News President Roone Arledge, the man who also created *ABC’s Wide World of Sports*. The experience was like the opening to *Wide World*, “spanning the globe” to cover the National Geographic beat for network news.³¹ Some of my ABC News colleagues said, that these were good stories, but they were not news. I disagreed and realized that even journalists can be biased against news about the Earth.

Smoke and Jobs

Earth Day, April 22, 1970, a national demonstration for environmental protection, is often singled out as “the day environmentalism in the United States began to emerge as a mass social movement.”³²

The founder of Earth Day, U.S. Senator Gaylord Nelson of Wisconsin wrote that Earth Day evolved over a period of seven years, beginning in 1962, when he persuaded President Kennedy to go on a national conservation tour, an unsuccessful attempt to put the environment into the political limelight. Senator Nelson’s remarks make it clear that he believed a form of

³⁰ Roger Caras and Don Wall, “Valley of the Monarchs,” *ABC World News Tonight*, 1981.

³¹ Stanley Ralph Ross, “Spanning the Globe” was Part of the Introduction to *ABC’s Wide World of Sports*. Available at [http://en.wikipedia.org/wiki/Wide_World_of_Sports_\(US_TV_series\)](http://en.wikipedia.org/wiki/Wide_World_of_Sports_(US_TV_series)).

³² Shabecoff, *A Fierce Green Fire*, p. 113.

environmental citizenship was necessary to national politics, and he took action to do something about it.

However it was the germ of the idea that ultimately flowered into Earth Day. I continued to speak on environmental issues to a variety of audiences in some twenty-five states. All across the country, evidence of environmental degradation was appearing everywhere, and everyone noticed, except the political establishment. The environmental issue simply was not to be found on the nation's political agenda. The people were concerned, but the politicians were not.³³

Senator Nelson came up with the idea for Earth Day, on a conservation speaking tour of western states in the summer of 1969.

At the time, anti-Vietnam War demonstrations, called "teach-ins," had spread to college campuses all across the nation. Suddenly, the idea occurred to me-why not organize a huge grassroots protest over what was happening to our environment?³⁴

After Senator Nelson announced plans of a "nationwide grassroots demonstration on behalf of the environment and invited everyone to participate, the wire services carried the story from coast to coast."³⁵

Senator Nelson quoted an article written on November 30, 1969, by Gladwin Hill for the New York Times.

Rising concern about the environmental crisis is sweeping the nation's campuses with an intensity that may be on its way to eclipsing student discontent over the war in Vietnam.³⁶

Twenty million demonstrators and thousands of schools and local communities participated, even though there was little organization. Senator Nelson wrote, "That was the remarkable thing about Earth Day. It organized itself."³⁷ Environmental citizenship was at work.

³³ Senator Gaylord Nelson, "How the First Earth Day Came About," available at <http://earthday.envirolink.org/history.html>.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Ibid.

President Richard Nixon, once told his speech writer, William Safire, “If there’s ever a flat choice between smoke and jobs, tilt toward jobs.”³⁸ Still, Nixon saw the political benefits of giving vocal support to the environmental movement. In his State of the Union address in January 1970, three months before Earth Day, Nixon said the 1970s “absolutely must be the years when America pays its debt to the past by reclaiming the purity of its air, its waters and our living environment. It is literally now or never.”³⁹

The great question of the seventies is, shall we surrender to our surroundings, or shall we make our peace with nature and begin to make reparations for the damage we have done to our air, to our land, and to our water? Restoring nature to its natural state is a cause beyond party and beyond factions. It has become a common cause of all the people of this country. It is a cause of particular concern to young Americans, because they more than we will reap the grim consequences of our failure to act on programs which are needed now if we are to prevent disaster later. Clean air, clean water, open spaces-these should once again be the birthright of every American. If we act now, they can be. We still think of air as free. But clean air is not free, and neither is clean water. The price tag on pollution control is high. Through our years of past carelessness we incurred a debt to nature, and now that debt is being called.⁴⁰

Nixon offered a concise opportunity to embrace environmental citizenship. Russell Train, an Undersecretary of the Interior, who became the first chairman of the President’s Council on Environmental Quality, the second administrator of the Environmental Protection Agency, and the founder and president of the World Wildlife Fund US, said, in a recent interview, “I think we all know, Nixon was first and foremost a politician and he understood at that time that the environment was an issue that the American people, the public really cared about.”⁴¹

³⁸ William Safire, *Safire’s Political Dictionary* (New York: Ballantine Books, 1978), p. 205.

³⁹ President Richard Nixon, *State of the Union Address*, Washington, D.C., January 1970. Available at <http://www.infoplease.com/t/hist/state-of-the-union/183.html>.

⁴⁰ Ibid.

⁴¹ Russell Train, interview by Bill Lawrence, Florida, videotaped for Don Wall’s *Russell Train Profile*, Botanical Research Institute of Texas, 2005.

Safire, one of Nixon's speech writers, who probably understood the president's true feelings about the environment, in the 1970s, defined an environmentalist as "an anti-polutionary; one who puts the values of the preservation of the Earth and its atmosphere ahead of economic development."⁴²

By the seventies, environmental impact became a rallying phrase for a loose alliance of scientists and political activists who were worried about the encroachments of immediate comfort upon the long-term life of man; the word 'ecology,' which meant a balance in nature of organisms and their environment, became a vogue term around 1970. "Ecologist," a term coined in 1873 by biologist Ernst Haeckel to describe the relationship of organisms to their environments, may replace "environmentalist" in time. However, "ecologist" has a more scientific connotation, and "environmentalist" still encompasses people who don't like chemicals in their drinking water or the smell of cigarette smoke in airplanes.⁴³

While *conservationist* has once again become a meaningful word for *environmentalist*, Safire saw it differently in the mid-1970s.

"Conservationist," the predecessor term, survives; perhaps it has been avoided by liberals interested in the restraint of technology because of its resemblance to "conservatism." George Reiger, conservation editor of *Field & Stream*, wrote *the New York Times* on January 10, 1978, "you should permit the record to be set straight on conservation, a word popularized in America by Gifford Pinchot (a hunter) after it had been used in Great Britain for half a century to describe 'the wise use of renewable resources'... People who believe that no creatures should be killed, that no forests should be cut, that in fact, the goldfinch that comes to their feeder this winter is the very same bird that visited them a decade ago should be called ultra-preservationists, radical environmentalists, unrealistic extremists, or residents of the twilight zone, but please, please, don't call them conservationists. They are not."⁴⁴

Still, during the Nixon administration, things did change, with the passage of the Clean Air Act, the Clean Water Act, and the formation of the Environmental Protection Agency. The Endangered Species Act, the most powerful piece of legislation protecting disappearing species and their habitats was signed in 1973.

⁴² Safire, *Political Dictionary*, p. 204.

⁴³ Ibid., pp. 204-205.

⁴⁴ Ibid., p. 205.

Over the years, a free press continued to hammer the message of environmentalism home with coverage of Three Mile Island, Love Canal, Times Beach, the Exxon Valdez, Bhopal, and Chernobyl. Michael Brown's revealing articles in the Niagara Falls Gazette exposed how a school and a neighborhood had been built on top of a chemical dumping site at Love Canal. That coverage led to national coverage, the relocation of hundreds of families, and federal intervention which eventually became the Superfund law. *The New York Times* started "Science Times," an entire section devoted to in-depth coverage of scientific and environmental affairs.

A grassroots effort by citizens, encouraged by a free press, had moved the US government to make environmental protection the law of the nation. The power of the free press explained by Thomas Jefferson to Lafayette has been an effective tool in making environmental issues, national issues, worthy of consideration.

The only security of all is in a free press. The force of public opinion cannot be resisted when permitted freely to be expressed. The agitation it produces must be submitted to. It is necessary ,to keep the waters pure.⁴⁵

A New Job for Philosophers

I believe that a strong sense of adventure and the aesthetics of nature had linked Carson, the space race and the Cousteau films. By 1970, environmental reporting had become a journalism subspecialty. Environmental consciousness in America, fueled by Earth Day and the news media coverage, had become a national phenomenon, flourishing to the chagrin of the political right. Simultaneously, classically trained philosophers to take a fresh look at the world around them, and the field of environmental ethics began to coagulate. It was an attempt by philosophers to understand the philosophical roots of environmentalism.

⁴⁵ Thomas Jefferson, *The Writings of Thomas Jefferson (ME) Memorial Edition*, Libscomb and Bergh, editors (Washington, D.C., 1853-4), 20 vols., available at <http://etext.virginia.edu/jefferson/quotations/jeff1600.htm>.

Eugene C. Hargrove, one of the founders of the field wrote:

The inspiration for environmental ethics was the first Earth Day in 1970 when environmentalists started urging philosophers who were involved with environmental groups to do something about environmental ethics.⁴⁶

The field grew out of applied ethical discussions involving medicine, business, feminism, and animal rights. As the environmental movement percolated in the left channel of the cultural mainstream, the philosophical writings in the journal, *Environmental Ethics*, beginning in 1979, began a global discussion and debate about the philosophical roots and values of an environmental ethic.⁴⁷

Hargrove, who created and still edits the journal, wrote, in his book, *Foundations of Environmental Ethics* that “environmental philosophy” might have been a better name. But he says, his journal, *Environmental Ethics*, offered a name which stuck.⁴⁸

Philosophy has traditionally refused to acknowledge or directly face up to the physical existence of the Earth. Greek philosophers decided that the world as we experience it was not real. Modern philosophers devoted several centuries to doubting its existence. As a result, in both periods of the history of philosophy, the environment was left out. Once environmental ethics or environmental philosophy finish putting the environment back into philosophy, it will be significantly different from what it is now.⁴⁹

The goal of environmental ethics is nothing less than an attempt to overhaul philosophy.

Hargrove writes:

If environmental ethics succeeds in overturning and replacing the flawed assumptions sprinkled throughout classical and early modern philosophy, the result will be a transformation of philosophy, as we have known it, or, depending on how you look at it, philosophy and environmental ethics will become one.⁵⁰

⁴⁶ Eugene C. Hargrove, “A Very Brief History of the Origin of Environmental Ethics for the Novice,” available at <http://www.cep.unt.edu/novice.html>.

⁴⁷ Eugene C. Hargrove, *Foundations of Environmental Ethics* (Denton, Tx.: Environmental Ethics Books, 1989), pp. 1-2.

⁴⁸ *Ibid.*, p. 3.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

If *Silent Spring* is the primary, popular, journalistic effort, that instigated environmentalism, and a moral position about environmental protection, then the foundational work, the rock, upon which environmental ethics sits is Aldo Leopold's book *A Sand County Almanac*, including the essay, *The Land Ethic*. Leopold, a U.S. forester by trade, a writer and amateur philosopher by choice, voiced the philosophical challenge of the land ethic thirteen years before *Silent Spring* was published.

J. Baird Callicott, who has called himself an ecocentric philosopher, and other philosophers gravitated towards the eloquence of Leopold's *A Sand County Almanac*, and especially the essay *The Land Ethic*. In the introduction to his book, *In Defense of the Land Ethic*, Callicott writes how a new look at philosophy could lead to what would later be called environmental citizenship, especially his reference to duty and obligation.

Today the need is greater than ever for philosophers to do what they once did—to redefine the world picture in response to irretrievably transformed human experience and to the flood of new information and ideas pouring forth from the sciences; to inquire what new way we human beings might imagine our place and role in nature; and to figure out how these big new ideas might change our values and realign our sense of duty and obligation.⁵¹

Callicott credits Roderick Nash in *Wilderness and the American Mind*, with identifying Leopold as the environmentalist “powerfully advocating for the first time in Western intellectual history, broad human ethical responsibility of the nonhuman natural world.”⁵² A closer look at Leopold's essay, where he writes the section called *The Community Concept*, lays a foundation for the future concept of environmental citizenship. “All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts.”⁵³

⁵¹ J. Baird Callicott, *In Defense of the Land Ethic* (Albany: State University of New York Press, 1989), p. 5.

⁵² *Ibid.*, p. 223.

⁵³ Leopold, “The Land Ethic,” p. 239.

His instincts prompt him to compete for his place in the community, but his ethics prompt him also to co-operate. The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively, the land.⁵⁴

Leopold also laid out the challenge to the American democracy, if it was going to develop a concept of rights for the land. “No important change in ethics was ever accomplished without an internal change in our intellectual emphasis, loyalties, affections, and convictions. The proof that conservation has not yet touched these foundations of conduct lies in the fact that philosophy and religion have not yet heard of it. In our attempt to make conservation easy, we have made it trivial.”⁵⁵

Leopold’s writing put forward a simple, clear statement of his sense of environmental ethics, which later philosophers would equate with environmental citizenship. “Quit thinking about decent land-use as solely an economic problem. A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise.”⁵⁶

Conclusion

The United States environmental movement blossomed in the late 1960s and early 1970s as *flower power*, morphed between an anti-war movement, a civil rights movement, a feminist movement, and an environmental movement, all movements of discontent. These movements were covered extensively by the print and broadcast news media. Reporters had to take new approaches to their craft, learning more about topics like culture and the science of ecology. It wasn’t just the facts, anymore, as Rachel Carson’s work exemplified. Television shows, such as

⁵⁴ Ibid., p. 239.

⁵⁵ Ibid., p. 246.

⁵⁶ Ibid., p. 262.

Jacque Cousteau's, brought environmental consciousness into the living rooms of America, and a president paid attention.

At the same time, professional philosophers examined these issues in the context of an apparent cultural war over changing values. The field of environmental ethics was hatched. Over time, some attitudes and policies have changed and will continue to change. As always there is the real possibility of something new in philosophy, and environmental ethics is an applied philosophy.

In Western philosophy, the central realm of citizenship in a democracy, the dualism of individual private rights and freedoms at odds with a sense of duty and civic responsibility have lead to discussions of a new approach to citizenship, called environmental citizenship.

CHAPTER 2

EVOLUTION OF ECOLOGY

Philosophical Roots

The history of environmental ethics in the United States mirrors the evolution of science and environmental reporting, which roughly coincides with the progression of the Baby Boomer generation, those Americans born after World War II. This is not merely a serendipitous coincidence or a convenient accident, but an example of the cultural impact caused by the science of ecology. Cultural evolution fused with historical events and ideas came at a turbulent time, when Americans were ready to change, changes which continue to take place. There is a greater realization that resources and even the power of democracy is not infinite. Understanding environmental citizenship requires some understanding of the philosophical roots of Western civilization.

Thomas Berry, a Catholic scholar, who described himself as a geologist rather than a theologian, writes about what is at stake in his book, *The Dream of the Earth*.

This time the issue at stake is not the fall of a civilizational period, such as the Fall of Rome, nor is it the decline in morals envisaged by Joachim (the father of the Blessed Virgin Mary), nor is it the need to extricate humans from the controlling forces of the natural world. The issue now is of a much greater order of magnitude, for we have changed in a deleterious manner not simply the structure and functioning of human society; we have changed the very chemistry of the planet, we have altered the biosystems, we have changed the topography and even the geological structure of the planet, structures and functions that have taken hundreds of millions and even billions of years to bring into existence. Such an order of change in its nature and in its order of magnitude has never before entered either into earth history or into human consciousness.⁵⁷

Berry's book was published in 1988, almost twenty years after the philosophers who put a name to the applied philosophy called environmental ethics started getting to know one another, and ten years after journalists, such as myself, who had embraced the subspecialty of

⁵⁷ Thomas Berry, *The Dream of the Earth* (San Francisco: Sierra Club Books, 1988), pp. xii-xiii.

environmental journalism, had begun achieving an increased level of public exposure and public acceptance. Berry's words would seem to indicate that some of the public discussion points had reached a serious, perhaps crisis level among people who considered themselves part of the Environmental Movement. Berry also wrote a great deal about the spiritual connection to nature.

The need to take action had been previously identified in the landmark paper, "The Historical Roots of Our Ecologic Crisis," by Lynn White, Jr., who wrote, "Our ecologic crisis is the product of an emerging, entirely novel, democratic culture. The issue is whether a democratized world can survive its own implications. Presumably we cannot unless we rethink our axioms."⁵⁸

Those axioms were well developed during the early triumph of Western science and Christianity over the pagan view of nature.⁵⁹ The historian, Donald Worster, in *Nature's Economy*, quotes Sir Francis Bacon, who asserted in the early 1600s, "The world is made for man, not man for the world."⁶⁰ Around the same time, Rene' Descartes had declared, "that animals are no more than machines, totally incapable of feeling pain or pleasure."⁶¹ Worster suggests that the underlying purpose of Linnaeus' piece, "The Oeconomy of Nataure," published in 1779, "was to find the hand of God in nature."⁶² Linnaean ecology supported the belief that "the Creator had designed an integrated order in nature which functioned like a single, universal, well-oiled machine."⁶³

Linnaeus also laid out a framework for what would later be called ecology. He supported the idea that oeconomy was frequently used to refer to the divine government of the natural

⁵⁸ Lynn White, Jr., "The Historical Roots of Our Ecological Crisis," *Ecology and Religion in History*, ed. David and Eileen Spring (New York: Harper & Row, 1974), p. 19.

⁵⁹ Donald Worster, *Nature's Economy* (New York: Press Syndicate of the University of Cambridge, 1994), p. 29.

⁶⁰ Ibid., p. 30.

⁶¹ Ibid., p. 40.

⁶² Ibid., p. 33.

⁶³ Ibid., p. 39.

world. Worster writes, “God’s economy was His extraordinary talent for matching means to ends, for so managing the cosmos that each constituent part performed its work with stunning efficiency.”⁶⁴

White traced man’s relationship with nature back to Genesis in the Bible, wherein man has been given dominion over nature. Historically, *dominion* resulted in the destruction of pagan animism. White wrote, “By destroying pagan animism, Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects.”⁶⁵

In “Defense of Dominion,” Lloyd H. Steffen writes:

It is God who uses this word and issues to the newly created and freshly blessed humans the well-known imperative: “Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon earth.” (Gen. 1:28) ...These words from Genesis have often been cited as the source for aggressive Western attitudes toward nature and the religious sanction for culture-wide practices of environmental disregard. Although no causal links between the Genesis account of dominion and humanity’s exploitation of its habitat have been convincingly established, either historically or philosophically, the suspicion that such links exist persists. ...Having examined the Genesis texts in which dominion first appears, I find no justification for equating dominion with domination. In fact, I am convinced that those who project domination values on dominion obscure the way in which dominion originally served justice, reflected relations of intimacy and peaceableness, and conformed to an ethic of ecologic responsibility. ...The value distortion lying behind the environmental crisis is reflected in the reality of domination, not the ideal of dominion. Facing the fact that domination attitudes are in part responsible for human action that leads to environmental degradation also necessitates facing the fact that domination affects human relatedness in the economic, social, and political spheres.⁶⁶

About the medieval view of man and nature, White wrote, “Man and nature are two things and man is master. The victory of Christianity over paganism was the greatest psychic revolution in the history of our culture.”⁶⁷

⁶⁴ Ibid., p. 37.

⁶⁵ White, “Historical Roots,” p. 25.

⁶⁶ Lloyd H. Steffen, “In Defense of Dominion,” *Environmental Ethics* Vol. 14 (Spring, 1992): pp. 63-80.

⁶⁷ Ibid., p. 23.

White, who lays the historical roots of our ecologic crisis at the foot of Christianity, writes, “More science and more technology are not going to get us out of the present ecologic crisis until we find a new religion, or rethink our old one.”⁶⁸ White suggests paying more attention to Saint Francis of Assisi, and his belief in the “virtue of humility, not merely for the individual but for man as a species. Francis tried to depose man from his monarchy over creation and set up a democracy of all God’s creatures.”⁶⁹

White writes about St. Francis, “His view of nature and of man rested on a unique sort of pan-psychism of all things animate and inanimate, designed for the glorification of their transcendent Creator.”⁷⁰ He concludes, “Hence we shall continue to have a worsening ecologic crisis until we reject the Christian axiom that nature has no reason for existence save to serve man.”⁷¹

But, rejecting that axiom, in favor of a type of stewardship, is no simple matter in a world where mankind has the ability to think, and think so highly of its own ability to dominate and prevail that, no other species, life form, or non-living form has significance. In his book, *Environmental Ethics: Duties to and Values in The Natural World*, Holmes Rolston, III quotes the philosopher, John Passmore, who “thinks that only paradigmatic human communities generate obligations.”⁷²

If it is essential to a community that the members of it have common interests and recognize mutual obligations, then men, plants, animals and soil do not form a community.⁷³

The concept of environmental citizenship can be used to refute that statement. While non-human organisms may not have the ability to verbalize, they do in fact share the common

⁶⁸ Ibid., p. 28.

⁶⁹ Ibid., p. 29.

⁷⁰ Ibid., p. 30.

⁷¹ Ibid.

⁷² Holmes Rolston, III, *Environmental Ethics* (Philadelphia: Temple University Press, 1988), p. 161.

⁷³ Ibid.

interest of survival, whether that interest is God's plan or a scientific axiom. For a community to exist, its members must survive. It is a scientific duty and an obligation. For example, when a patch of a forest is burned to the ground, new life, such as grass, moss and seedlings to replace significant trees quickly emerge from the soil. Non-living entities, such as soil, water, rocks, and minerals all play significant roles in creating this spatial environment, this community. Nutrients in the soil combined with water and sunlight enable plants to grow, to provide food for human and non-human living organisms. The environmental citizen recognizes this and thus works to consider preserving and protecting the integrity of the community. So, Passmore is wrong to voice the view that the members of a community must be able to communicate in human terms. Clearly, these living and non-living organisms share common interests and obligations to survive.

Life occurs in the context of environment. In human terms, it is where we live. A community existing solely of human beings, such as a human colony in a bubble, with no water, no food, and no sunlight would not survive.

Still, the axioms of dominion continue to exist today. To a great degree, this Western world view is what the environmental movement has been trying to change, with the help of environmental philosophers, environmental journalists, and scholars. Hargrove argues that it is not essential to change Western attitudes, because seen differently, Western attitudes "are the appropriate foundations for an environmental ethic." "We do not need a new coat; the coat we have just needs a significant amount of tailoring."⁷⁴

In his comments about Eugene C. Hargrove's *Foundations of Environmental Ethics*, environmental philosopher, Bryan G. Norton wrote that the book:

⁷⁴ Hargrove, *Foundations*, p. 4

...establishes the existence of a strong tradition of naturalism—fostered and nourished by a creative interaction of field naturalists and nature artists—that predates the individualistic animal welfare and animal rights traditions. It is this anthropocentric, mainly aesthetic tradition, Hargrove shows, which has shaped contemporary environmentalism.⁷⁵

The use of the word *anthropocentric* brings us to a discussion of values. Hargrove discusses nature appreciation and nature preservation in terms of one's view of intrinsic and instrumental values.

The first is instrumental value. An entity is instrumentally valuable if its existence or use benefits another entity, usually a human being. The second is intrinsic value. An entity has intrinsic value if it is (1) valuable for its own sake or (2) valuable without regard to its use. These kinds of value may, moreover, be either anthropocentric or nonanthropocentric. An anthropocentric value is basically a human value. It is often customary to assume that all anthropocentric values are also instrumental, that is, valuable because they benefit human beings. It is nevertheless possible for values to be anthropocentric and intrinsic.⁷⁶

Home

Throughout my career as a journalist, I have tried to expand the definition of *environment*, but the simplest idea is the concept of home. For a person that could mean a house in a neighborhood, a community, a state, a nation, or on the Earth. Citizens have rights and responsibilities to protect their home. Environmental citizens will generally feel a sense of obligation to protect not only their home, but the home of other creatures, habitats and ecosystems, as well. In nature, it is more important to protect the habitat than any single member of it. For a non-human living creature, the environment is still a place, a habitat, although the non-human, while it may have a sense of territory, probably doesn't have a sense of its place on the Earth. Environmental citizens understand the need to protect the process of dependence that exists between a fish and a pond, a bear and its range, a bird, its nest and its habitat. The

⁷⁵ Ibid., back cover.

⁷⁶ Ibid., p. 124.

environmental citizen has a duty to do what is good for that place, for that form. If resources are to be harvested, an attempt to maintain the integrity of the place would be considered a good thing.

What relates all living things and non-living things to place is the science of ecology. Ecology is the process, or really the processes involving living and nonliving things in proximity to one another, so that relationships are formed, either among members of a species, among species, or among species and their habitat. Ecology comes from the Greek word, *oikos*, meaning home, the same root as the word, economy. The science of ecology has evolved in such a way that its concepts keep changing. For example, the old ideas about the balance of nature, of succession leading to a climax community, as stated by the Nebraska scientist, Frederic Clements, have been replaced by newer ideas about change, disturbance, and patch dynamics.⁷⁷ In this sense, then, changing ideas play an important role in our understanding of ecology.

In his book about disturbance, S.T.A. Pickett writes, “Organisms, communities, populations, and ecosystems vary, have a history, and are subject to the vagaries of climatic and geological background. Thus, the sorts of predictions we make about disturbance are mechanistic—those that take into account the peculiarities of a particular system and situation.”⁷⁸

Essentially, mankind, or the footprint of man is now, and has always been, in areas where man has existed, integral to ecology. Few places in the world are pristine, if pristine means beyond the reach of man. No place on Earth has always been or will always be the same. Pickett cites Karr and Freemark, Wiens, and Sprugel, when he writes, “Conservation decisions must consider the role of disturbance. An essential paradox of wilderness conservation is that we

⁷⁷ S.T.A. Pickett and P.S. White, *The Ecology of Natural Disturbance and Patch Dynamics* (San Diego: Academic Press, 1985).

⁷⁸ *Ibid.*, p. 377.

seek to preserve what must change.”⁷⁹

By definition *ecology* involves changing processes and disturbance. There is no equilibrium except change. Both the hand of man and the happenings of nature cause irrevocable change. There is no stasis, more stable than another. There is no purity in the idea of environment; there is no predicting the next ecological steps of man, or the evolution of Planet Earth. All we have now is information, and we have codes. This is what we think we know.

Overall, the national debate about resource management is still dominated by those who see ecology as managing ecosystems for economic purposes, alone. Environmentalists are generally opposed to this view. But many environmentalists still cling to the balance of nature myth.⁸⁰ Even journalists need to be educated about the new ideas about the flux of nature, and conservation biology.⁸¹

In “The New Paradigm in Ecology,” by Pickett, Parker, and Fiedler, a question is posed. “What should the public and policymakers know about the new paradigm? How can the complexities of the new views and insights be communicated to non-specialists? One major problem is that the old paradigm is still very much alive and well in some quarters, and it resonates with the widely held cultural bias of the balance of nature.... There is an immense educational mission ahead.”⁸²

Evolution of Ecology

A new paradigm of ecology “strives to offer society two kinds of knowledge and,

⁷⁹ Ibid., p. 376.

⁸⁰ Stewart T.A. Pickett, V. Thomas Parker, and Peggy L. Fiedler, “The New Paradigm in Ecology: Implications for Conservation Biology above the Species Level,” in P.L. Fiedler and J.A. Jain, eds., *Conservation Biology* (New York: Chapman and Hall, 1992), pp. 67-68.

⁸¹ Ibid., p. 72.

⁸² Ibid.

therefore, two kinds of power,” according to Mark Sagoff, in *Fact and Value in Ecological Science*.⁸³

The first provides a scientific framework in which we may manage ecosystems to maximize the goods and services we may derive from them. The second provides a scientific framework, in which society can appreciate the qualities of those systems and evaluate policies concerning them.⁸⁴

One enhances environmental management. The second enhances environmental protection. Sagoff suggests that ecologists might help society “to recognize the qualities of natural systems which are worthy of love and admiration, and which should be preserved because of their place in our natural and evolutionary heritage.”⁸⁵

In *The Practice of the Wild*, Gary Snyder writes:

Environmental concerns and politics have spread worldwide. In some countries the focus is almost entirely on human health and welfare issues. It is proper that the range of the movement should run from wildlife to urban health. But there can be no health for humans and cities that bypass the rest of nature. A properly radical environmentalist position is in no way anti-human. We grasp the pain of the human condition in its full complexity, and add the awareness of how desperately endangered certain key species and habitats have become. We get a lot of our information – paradoxically—from deep inside civilization, from the biological and social sciences. The critical argument now within environmental circles is between those who operate from a human-centered resource management mentality and those whose values reflect an awareness of the integrity of the whole of nature. The latter position, that of Deep Ecology, is politically livelier, more courageous, more convivial, riskier, and more scientific.⁸⁶

In 1975, after British atmospheric chemist James Lovelock thought about photos he’d seen from outer space and his own scientific efforts to explain the planet, he developed a hypothesis that “The system seemed to exhibit the behavior of a single organism, even a living creature. One having such formidable powers deserved a name to match it; William Golding, the novelist, suggested Gaia—the name given by the ancient Greeks to their Earth Goddess.”⁸⁷

⁸³ Mark Sagoff, “Fact and Value in Ecological Science,” *Environmental Ethics* 7 (Summer 1985): 116.

⁸⁴ Ibid.

⁸⁵ Ibid., p. 102.

⁸⁶ Gary Snyder, *The Practice of the Wild* (New York: North Point Press, 1990), p. 181.

⁸⁷ Alan S. Miller, *Gaia Connections* (Savage, Md.: Rowman & Littlefield Publishers, 1991), p. 2.

In his introduction to *Gaia Connections*, Robert S. Miller writes:

Ironically, the growing severity of the human assault on nature has had its positive side. We now understand that ethics is broader and deeper than simply the concern we have for our fellow human beings. Many of us now realize that any viable modern ethic must also include a consciousness of our duties to and our moral responsibility for nature itself. ...if we are in fact in the process of defining a new ethic, how does this understanding relate to ecology, economics, science, medical practice, the conduct of war, the rights of nonhuman parts of the creation, and the social responsibility of human beings who understand the necessity of organizing for change within the structures of society?⁸⁸

Feminism, which was widely covered by the news media in the 1970s, found a connection with environmentalism, and a philosophic approach called ecofeminism evolved from it. Ecofeminism draws parallels between the oppression of women and the oppression of nature. But, as Val Plumwood points out in *Feminism and the Mastery of Nature*, “The very idea of a feminine connection with nature seems to many to be regressive and insulting. Summoning up images of women as earth mothers, as passive, reproductive animals, contented cows immersed in the body and in the unreflective experiencing of life.”⁸⁹

Plumwood identifies a problem, which may also lead to a solution. “Since culture was shaped around the written word in Plato’s time, the ruling elites which stand at the apex of various forms of domination have been able through their command of social resources to exercise control over culture disproportionate to their numbers.”⁹⁰

Moved by the Spirit

An early proponent of an organismic ecology was articulated by Henry More, a Cambridge lecturer, who was taken with the animism of Plato and Plotinus.⁹¹ More argued for the existence of a Soul of the World, or Spirit of Nature. His idea was to replace God, the

⁸⁸ Ibid., p. 5.

⁸⁹ Val Plumwood, *Feminism and the Mastery of Nature* (London: Routledge, 1997), p. 20.

⁹⁰ Ibid., p. 190.

⁹¹ Worster, *Nature’s Economy*, p. 42.

supreme engineer, with a force “as a substance incorporeal but without sense and animadversion, pervading the whole matter of the universe and exercising a practical power therein raising such Phenomena in the world, as cannot be resolved into mere mechanical powers.”⁹²

On the other hand, God need not be excluded from a sense of nature appreciation, but be exalted on traditional grounds, as Hargrove writes in *Foundations*.

God could be viewed as an artist and natural objects, even species, as art objects in accordance with divine design. Such objects could be construed as having intrinsic value, since they were beautiful independent of human use, and as being nonanthropocentric, since the standards of beauty were obviously established by God at the time of creation.⁹³

Environmental philosophers, writers, and artists often feel infused with a sense of nature spirit, a human connection to the aesthetics, the mystery, the beauty and the sublime of nature. Callicott, who considers himself an ecocentric environmental philosopher, found a sense of nature spirit, when he got a job as a philosophy professor at what is now The University of Wisconsin-Stevens Point. “I was unaware at the time that I had alighted at the spiritual epicenter of the dawning ecological consciousness—and conscience.”⁹⁴ The university is in the sand country of central Wisconsin, the same land that Leopold wrote about in, *A Sand County Almanac*, which Callicott described as, “just what the doctor ordered for an emerging contemporary environmental ethic. As an environmental philosopher of the third kind—an ecocentric revisionist—I felt that Leopold’s *A Sand County Almanac* was a touchstone, a seminal classic.”⁹⁵

In *Foundations*, Hargrove describes a personal moment, which, in a sense, inspired his interest in environmental ethics, when his interest in cave exploration led to nature preservation.

⁹² Ibid.

⁹³ Hargrove, *Foundations*, pp. 124-125.

⁹⁴ Callicott, *In Defense of the Land Ethic*, p. 1.

⁹⁵ Ibid, p. 6.

When the cave he was exploring was threatened by urban water pollution, Hargrove successfully worked to protect the cave. He writes:

In the case of a cave, we must appeal to its beauty or its scientific interest as a foundation for our preservationist concern, and this appeal is anthropocentric, involving human or humanlike consciousness that is capable of perceiving and appreciating the noninstrumental aesthetic and scientific values of the cave.⁹⁶

Environmental citizens often possess this sense of the intrinsic value of nature, and it is usually based on personal experiences, sometimes through art, but most often by spending time being close to nature. I cannot remember a time, when I did not feel drawn to God in nature and the outdoors. My nature spirit has always been infused with a sense of ecology, of natural relationships between species within their space. But I feel equally influenced by the sheer beauty of nature and its processes, as Emerson has noted:

A nobler want to man is served by nature, namely the love of Beauty. The ancient Greeks called the world kosmos, beauty. Such is the constitution of all thing ... as the sky, the mountain, the tree, the animal give us a delight in and for themselves.⁹⁷

My spirit of ecology developed during wonderful experiences in what seemed like endless summers, rowing through the salt marshes of Cape Cod, catching eels off the Swan River Bridge. I would later learn in ichthyology class that eels live in fresh water, and migrate into the sea to mate and spawn. That makes them catadromous, as opposed to anadromous fish, like salmon. Most of us have seen films of the spectacle of salmon from the ocean swimming up fresh water rivers and streams to reproduce, the bears waiting to eat their share, and the weaker fish not making it to the spawning pools. Few people have seen film of eels leaving the brackish waters of rivers such as the Swan, going back out into the ocean waters of Nantucket Sound to mate, but we caught several from the Swan River Bridge, every summer, to help prove it. There

⁹⁶ Quoted in Hargrove, *Foundations*, p. 167.

⁹⁷ Ralph Waldo Emerson, "Nature," sec. 3, *Selected Writings of Ralph Waldo Emerson*, ed. Brooks Atkinson (New York: Random House, 1940), pp. 7, 6.

is something awesome about learning about the natural processes of the world. Environmental citizens share that sense of curiosity.

I was also an avid shell collector, always, combing the beach for special treasures, and to this day, I display my shells with pride, because of the way people are drawn to their points and spirals and symmetry. When visitors look at my shell collection, they often ask me to tell them the stories that go along with them. Doing so gives me a chance to practice my sense of environmental citizenship as an adventure traveler and story teller.

One of my favorite shells was given to me by a friend of my grandfather, a man who seemed to be oozing with nature spirit—an old, white haired sage named Tom McDermitt. Mr. McDermitt took us on special trips to the outer banks of Cape Cod, and he took us to the docks, and the famous fish market, owned and operated by several generations of the Nickerson family of fishermen. The shell he gave me is a perfectly preserved king helmet shell, which was originally pulled up in one of the Nickerson's nets. Undoubtedly, the mollusk was still alive, and had to be boiled out of the shell.

At twenty six, I was walking on the beach with my father when we found some large channel welks, the morning after a big storm. It was just a few weeks before Dad died of cancer, and collecting the shells became a strange, spiritual experience.

Every summer, my father would buy a clamming permit, and our entire family would go to the designated coves and dig the little neck clams out of the sand. Invariably, we would cut our fingers on broken shells, our blood flowing back into the biological mix in the water. We'd take our bushel of clams home and eat steamers with clam broth and melted butter. So we not only interacted with the sea life, we harvested it for our own food, a clear realization that we were part of our environment.

I always felt very much an active participant in the ecology of Cape Cod, even before I had heard of the word, ecology. The territory where I feel the most comfortable is the edge of the sea, where terrestrial life and marine life come together. I walked along the edges of salt marshes, and saw thousands of crab holes, about the size of dimes—and sometimes when the tide, or the sun was just right, thousands of fiddler crabs wandered, not far from their burrows, moving sideways, brushing their smaller claw across their mouth like a fiddle bow. When I would walk towards the crabs, they would all scurry back into their holes. Even my shadow would cause the retreat, the shadow, I surmised, an indicator of a predator from above, a sea gull or a sand piper. I was a natural child of ecology, lucky enough to have the free time to observe, first hand, and be involved in the relationships between organisms, and places, like birds and salt marshes, flies and sand dunes, and the open ocean, where the big fish swam. Sometimes at night, my grandfather took me down to the beach to watch the surf casters muscle their large fishing rods with the heavy weights, large hooks, and colossal reels, big enough to pull in the giant striped bass, or the smaller blue fish, which put up a tougher fight.

As childhood gave way to teenage years, I watched Cape Cod change—the great swaths of grasses and dunes, and cranberry bogs plowed under for housing developments. My favorite old climbing tree, the wisdom tree, I called it, disappeared one year, when I returned. I learned, by reading the *Cape Cod Times* newspaper, how aviation fuel leaks at Otis Air Force base had contaminated much of the ground water of the Upper Cape, and how the huge increase in population, especially in the summer, but increasingly year round, was creating a sewage problem, since most of the houses used septic tanks, which leach human waste out into the thin layer of sand and soil, and into the ground water. Beautiful meadows of sea grass and bird songs had given way to an endless highway of motels, clam shacks, and miniature golf courses.

All of these stories became part of my way of looking at the world, and served to imbue a strong sense of environmental citizenship. I certainly believe that the natural systems of the Earth are worth protecting, and over the years I have taken action, particularly as a writer and television producer to instill a sense of environmental citizenship in others.

During my career as a reporter and television producer, I've done many of these types of stories, contamination at air bases, ground water pollution, urban sprawl, endangered wildlife, and beach erosion. I've also covered stories about the wonders and mysteries of the sea, such as the beaching of whales and the *Dead Zone*, the hypoxic area, the size of New Jersey at the mouth of the Mississippi River, where algae has used up all of the oxygen, making it impossible for fish, crabs, shrimp, even plants to live there.

In 1979, in the *New York Times*' section *Science Times* article I wrote, with the headline "Scientists Flock to Study Beached Whale,"⁹⁸ I quoted a scientist, who was studying the eyes of a beached whale, who said, "It's so mystical, it's exciting."⁹⁹ When he used the word *mystical* he meant that the experience of studying the eyes of the giant mammal to learn more about the eyes of human beings was a spiritual experience. Mystery and adventure together make a tantalizing potion.

I elaborate on my personal experiences, because of the strong influence of contemplating nature in my own thought process, and because similar experiences for other people often play a key role in the development of their own sensibilities. I feel certain that people who think of themselves as environmental citizens have experienced similar epiphanies.

⁹⁸ Donald Wall, "Scientists Flock to Study Beached Whale," *New York Times*, Tuesday, 10 April 1979, *Science Times*.

⁹⁹ Ibid.

As Thoreau put it, “Talk of mysteries!—Think of our life in nature, daily to be shown matter, to come in contact with it, rocks, trees, wind on our cheeks! the solid earth! The common sense! Contact! Who are we? Where are we?”¹⁰⁰

In Thoreau’s book, *Cape Cod*, he describes a beach, not far from where the Pilgrims first landed in Provincetown:

Though for some time I have not spoken of the roaring of the breakers, and the ceaseless flux and reflux of the waves, yet they did not for a moment cease to dash and roar, with such a tumult that if you had been there, you could scarcely have heard my voice the while; and they are dashing and roaring this very moment, though it may be with less din and violence, for there the sea never rests. A man may stand there and put all America behind him.¹⁰¹

For me, it wasn’t just in the bays and the estuaries where I felt this kinship with nature, this nature spirit. I grew up with it, roaming the woods of Central Massachusetts, usually with friends, sometimes alone, eating wild blueberries, watching bees and butterflies flitter between wildflowers, playing war, shooting marbles at birds with home-made sling shots, throwing rocks at yellow jacket nests to stir them into a frenzy. Sometimes, alone I would sit for long periods of time on a ledge overlooking our neighborhood, although I often couldn’t see the neighborhood through the patch of trees. As the breeze traveled between the branches, often creating audible creaks and cracks, I felt the old age of hardwood trees and the new age of saplings and pines in patches of forest, and it was clear to me, that our newly, built suburban neighborhood wasn’t all that different than any other human settlement. Nature was disturbed, habitat destroyed, and relationships altered. Deer rarely showed themselves. There were still patches of meadows and wetlands and swamps, where we watched and interacted with animals, especially insects like butterflies, bees, wasps and ants, amphibians such as salamanders, tadpoles, frogs and toads, birds, and small mammals. Squirrels, skunks, and raccoons were common. And, while there

¹⁰⁰ Henry David Thoreau, *The Maine Woods* (New York: Crowell, 1961), p. 93.

¹⁰¹ Henry David Thoreau, *Cape Cod* (New York: Thomas Y. Crowell Company, 1966), p. 76.

were probably no black bear within close range at the time, (they have since returned), I liked to create a sense of a dark and dangerous forest, to enhance the adventure, and while I didn't believe in leprechauns, trolls, or elves, I waited for the moment when one would reveal itself. I invented a character in my mind called the Invisible Moose, which lived in the woods near a gravel road named Birdland. The moose would chase us away, if we didn't pass quietly, and we often found ourselves yelling and running for our lives. We used to throw rocks at the large water tank up there on the hill to hear the pinging sound. One time I remember startling a grouse, throwing a rock and striking it, then watching it die and feeling awful about it. Every so often we would come upon a lady slipper, pink orchid of the forest, and leave it alone. Patience was always rewarded in the woods.

These experiences, too, became the fodder of news stories. I sought television stories in the woods, tracking black bear with radio collars in Maine, the incredible return of wildlife to our urban areas, skunks, coyotes, even moose and deer. I filmed a canoe trip from Fort Worth to Dallas on the Trinity River to show how much of the river habitat in the Great Trinity Forest would be destroyed, while the U.S. Army Corps of Engineers attempted to make Dallas less vulnerable to a potentially catastrophic flood.

When Dallas put forth plans to build urban parks and plant trees, I did a story about the value of a tree in the city, focusing on aesthetics and utility. Trees not only convert carbon dioxide into oxygen, but, they make us feel good, and they provide habitat for wildlife. They bring nature back into our concrete jungle.

There is instrumental value in telling these stories. People are influenced to take action, to act as citizens. Restoring nature in the city is a valuable thing to do. It adds to the aesthetics of the place, and increases the desirability of living there, so property values may also increase.

Architectural firms and urban planners are paying more attention to the aesthetics of urban life than they ever have. Environmental reporting has a lot to do with that.

God in Nature

Many potential environmental citizens may feel infused with a sense of nature spirit because of the anthropocentric essence of the environmental movement, a spirit which reflects values, which suggests rights for nonhuman endeavors, like the right to breathe clean air. This spirit of environmental citizenship has long been criticized by utilitarians and supply and demand economists as an externality. But that is changing.

All the major religions now have followers who find their own sense of God in nature. Still, nature spirit is a philosophically dangerous term. Nature spirit is equated with paganism, wiccan spirituality, and the philosophy of animism, the ancient native American philosophy that everything in nature has its own spirit, animals, humans, rocks, water, fire, and wind, according to the United Communities of Spirit.¹⁰²

Finding God in nature was the general idea of the deists, who, in the late seventeenth, early eighteenth centuries, practiced a kind of natural religion, a sense of God without doctrine. The World Union of Deists quotes a 1941 definition from Webster's Encyclopedic Dictionary, that defines a deist (from Latin *Deus*, God) as "One who believes in the existence of a God or supreme being but denies revealed religion, basing his belief on the light of nature and reason."¹⁰³ Thomas Payne and Thomas Jefferson supported deist ideas.

Many scientists today are abandoning the idea that believing in evolution makes one an atheist, and alternatives to creationism or creative design are emerging in the forms of

¹⁰² Available at <http://origin.org/ucs/doc/efm?=1&ups=2&edit=3176&fi=1071>.

¹⁰³ Available at http://deism.com/deism_defined.htm.

ecochristianity and ecobuddhism.¹⁰⁴ One Baptist minister, the chaplain at Parkland Hospital, Ross Prader, recently told me, he likes the term, “theistic evolution,” which he first learned as a divinity student at the Southwestern Baptist Seminary in Fort Worth.¹⁰⁵ Theistic evolution allows him to believe in creationism and evolution at the same time.

Environmental citizens may be atheists or believe in a higher power. The important thing is that they believe that they are a part of an environment which they value. Hargrove writes that “Traditional ethics is usually considered to be anthropocentric in the sense that nature is valued only to the degree that it is instrumentally valuable to human beings.”¹⁰⁶ It turns out that environmental citizens value nature intrinsically as well. In philosophical terms that is called a weak anthropocentric position.¹⁰⁷

G.E. Moore’s philosophy put voice to the ideas of preservation and an aesthetic appreciation of nature, as seen through nature paintings, as Hargrove quotes.¹⁰⁸

We do think that the emotional contemplation of a natural scene, supposing its qualities equally beautiful, in some way a better state of things than that of a painted landscape: we think that the world would be improved if we could substitute for the best works of representative art real objects, equally beautiful.¹⁰⁹

Moore’s opinion makes clear there is no consensus on the way things are, or the way they ought to be.

Taking a weak anthropocentric a position is a bit like walking the philosophical plank because of a perception that such a stance is soft, or a little more open to an ecofemist view. It smacks of the idea of men discovering their feminine side. Such feelings probably gave rise to the Iron John phenomenon. *Iron John* is a book written by Robert Bly and published in 1990. It

¹⁰⁴ Available at <http://origin.org/ucs/doc/efm?=1&ups=2&edit=3176&fi=1071>.

¹⁰⁵ Ross Prader, personal communication with Don Wall, April, 2007.

¹⁰⁶ Hargrove, *Foundations*, p.11.

¹⁰⁷ Eugene C. Hargrove, “Weak Anthropocentric Value,” *The Monist* 75, no.2 (April 1992): pp.183-226.

¹⁰⁸ Ibid., p. 102.

¹⁰⁹ Ibid.

became associated with a men's movement, based on mythological stories, where groups of men would camp in the woods, and drum and dance through the night around a roaring campfire. It was an answer to feminism, but even more, it became a way for men to accept environmentalism, to allow themselves to become environmental citizens. *Iron John* points the way toward developing what Bly calls:

The 'inner warrior,' whose task is not hostility and aggression but a steady resolve to know and to defend what one loves. This initiatory path, which is long, begins by getting in touch with the 'Wild Man' who reconnects us to the Earth.¹¹⁰

Showing interest in the mysteries of life need not be a theological statement or an animal rights statement. That is to say that in regard to spiritual matters, the freedom to believe in religion, or not is considered a right in the United States. There is almost certainly, no right and no wrong way to think about spiritual matters.

However, a citizen might consider that it is a good thing to be able to think at all, and that the contemplation or discussion of spiritual matters and the environment would likely lead to a benevolent view. So in this sense, nature spirit is a mystical connection, which may or may not be religious. In this sense mystical means communion with nature, a spiritual truth gained through contemplation of the mind. It manifests itself as a tone of voice, if you will, which reflects an idea that preserving the integrity, stability and beauty of ecosystems is good or right, as Leopold wrote in "The Land Ethic."¹¹¹

President Theodore Roosevelt voiced his views on the paradox of supporting economic growth and environmental protection at the same time. Here is Roosevelt's quote which is on display in the Roosevelt Rotunda at the American Museum of Natural History:

There is a delight in the hardy life of the open. There are no words that can tell the hidden spirit of the wilderness, that can reveal its mystery, its melancholy and its charm.

¹¹⁰ Robert Bly, *Iron John* (New York: Addison-Wesley Publishing Company, 1990), liner notes.

¹¹¹ Leopold, *A Sand County Almanac*, p. 262.

The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased; and not impaired in value. Conservation means development as much as it does protection.¹¹²

Conclusion

In 1970, Bob Weir and Robert Hunter wrote a song called “Sugar Magnolia/Sunshine Daydream” which the Grateful Dead recorded. It was a song about “blossom’s blooming,” and “a breeze in the pines in the summer night moonlight,” and it included the line “We can discover the wonders of nature, rolling in the rushes down by the riverside.”¹¹³ Baby Boomers had rediscovered the traditions of American naturalism, the ideas of Thoreau and President Theodore Roosevelt. They questioned Christianity, explored new ideas about spiritualism, and embraced evolving ideas about ecology, about the relationships of living things in their particular ecosystems. Ideas about health and wellness extended to the planet, itself. Baby Boomers began to realize that the American footprint is large and ecologically damaging, and that natural resources are not infinite in nature. At the same time, feminists explored connections between the exploitation of women and the exploitation of the environment. Citizens began to realize that they play a significant role in the quality of the environment.

¹¹² Available at <http://www.amnh.org/museum/welcome/contact.html?src=footer>.

¹¹³ Bob Weir and Robert Hunter, “Sugar Magnolia/Sunshine Daydream,” *A Box of Rain, Lyrics 1965-1993* (New York: Penguin Books, 1993), p. 211.

CHAPTER 3

A NEW APPROACH TO CITIZENSHIP

Environmental Citizenship

A good citizen values environmental protection, protection for themselves, their children and their grandchildren. An environmental citizen realizes that environmental protection takes action.

As the environmental movement has evolved from the left leaning center of the cultural mainstream, the philosophical writing in the journal, *Environmental Ethics*, has discussed and debated the philosophical roots and values of an environmental ethic. At the same time, environmental reporting, as part of a free press, has flourished (and floundered) by attempting to inform millions of people, in America, and worldwide, about environmental issues, problems, and solutions.

Corporations and governments are beginning to see the economic value of environmentally sound manufacturing methods. Schools now teach children about the watershed, and what it means to the community. All of this contributes to the applied and evolving idea of environmental citizenship, a more encompassing term than ecological citizenship.

On the website for the Center for Environmental Philosophy, based at the University of North Texas, Eugene Hargrove gives Environment Canada credit for first developing the idea of environmental citizenship. Hargrove defines environmental citizenship in three ways, “1: an idea that we are an integral part of our environment. 2: recognition that our future depends on

how we care for our ecosystems. 3: a sense of responsibility that leads to action on behalf of the environment.”¹¹⁴

The Environment Canada article, “An Environmental Citizen. Who Me?” states:

It is our responsibility to care for the environment. It’s also in our best interest. The challenge of learning about and protecting the environment may at first seem overwhelming environmental issues are often complex. But there are simple things that everyone can do to benefit the planet and themselves. The key is to start small and go from there!¹¹⁵

This is Environment Canada’s version of the popular phrase, “Think globally, act locally,” the phrase attributed to Rene’ Dubos as an advisor to the UN Conference on the Human Environment in 1972.¹¹⁶

In 1979, Dubos suggested that ecological consciousness should begin at home. He believed that there needed to be a creation of a World Order in which “natural and social units maintain or recapture their identity, yet interplay with each other through a rich system of communications.”¹¹⁷ Dubos felt issues must be dealt with in terms of their “unique physical, climatic and cultural contexts.”¹¹⁸

Environment Canada lays out very specific, practical steps that citizens can take to protect resources, such as fixing leaky faucets, cutting down on water use to preserve an adequate supply, water recycling, using public transportation and more energy efficient vehicles, avoiding the purchase of products containing ozone-depleting substances, recycling and reducing garbage, reusing and repairing material agents, reducing or avoiding the use of pesticides, reducing dependence on chemical fertilizer, developing drought resistant crops,

¹¹⁴ Center for Environmental Philosophy; available from <http://www.cep.unt.edu/citizen.htm>.

¹¹⁵ Environment Canada; available from <http://www.ns.ec.gc.ca/udo/who.html>.

¹¹⁶ Joy Grillon; available at http://capita.wustl.edu/ME567_Informatics/concepts/global.html.

¹¹⁷ Ibid.

¹¹⁸ Ruth A. Eblen and William R. Eblen, eds., *The Encyclopedia of the Environment* (Boston: Houghton Mifflin Company, 1994), p. 702.

restoring native plants and natural predators, creating wildlife habitat, protecting green space, advancing green building technology, and advancing the health and wellness movement. The agency even offers a point system so that people can rate themselves on their level of commitment to environmental citizenship. “The goal of environmental citizenship is a society where individuals and groups have the knowledge and understanding that will lead to responsible environmental action.”¹¹⁹

The suggested practical tasks that individuals can take mirror the actions outlined in the best-selling book in America, published in 1989 by the Earth Works Group, *50 Simple Things You Can Do To Save the Earth*.¹²⁰ Chris Calwell, with Natural Resources Defense Council, states in the introduction:

Most of the 50 Things covered here are unbelievably easy. They are the kind of things you would do anyway to save money—if you knew how much you could save. But remember: as much as we are the root of the problem, we are also the genesis of its solution.¹²¹

On the Environmental Citizenship page of the Center for Environmental Philosophy website, Hargrove paraphrases Aristotle, widely regarded as one of the first Western philosophers, along with Plato to define citizenship in a democracy.

Citizenship and ethics are one. Ethics is from the standpoint of the individual. Citizenship is from the standpoint of the group. The moral character of an ethical person is the same set of characteristics or virtues needed to be a good citizen.¹²²

Hargrove also paraphrases Mark Sagoff, a specialist in environmental ethics and the economy.

We are citizens, not just consumers. Our environment requires citizen preferences, not just consumer preferences. As citizens, we need to protect nature, not just buy, sell and consume it. It has a dignity, not just a price.¹²³

¹¹⁹ Environment Canada, available at <http://www.ns.ec.gc.ca/udo/who.html>.

¹²⁰ The Earth Works Group, *50 Simple Things You can do to Save the Earth* (Berkeley: Earthworks Press, 1989).

¹²¹ Ibid., p. 6.

¹²² Eugene Hargrove paraphrasing Aristotle, “Environmental Citizenship”; available at <http://www.cep.unt.edu/citizen.htm>.

¹²³ Hargrove paraphrasing Mark Sagoff, “Environmental Citizenship.”

Blueprint for Environmental Citizenship

Generally speaking, this environmental citizen will have experienced an epiphany, such as my own, an event or an area of study which acted to drive the person to the concept of environmental citizenship, and so there are likely similarities between people who believe in the benefits of a healthy environment, and are willing to take action to make that happen. An environmental citizen would likely be a person who includes external values in economic decisions, who supports the idea that the quality of life depends, not just on material agents, but on initiating and maintaining some level of protection for the integrity of ecology of life and of place. The environmental citizen would know and promote the reality that technology can be developed to conserve energy and reduce pollution. That citizen might take part in, or support, social efforts of environmental responsibility, and would be capable of responding to a need, by performing or supporting a public service to protect the environmental integrity of the community, including its air, its water and its land.

Paul Westbrook is a prototypical environmental citizen of 2007. He's the Sustainable Development Manager for Texas Instruments and he drives a Hybrid car. He lives in a passive-solar house in Fairview, Texas, which he had built, that uses a third of the electricity and less than a fourth of the water of conventional homes in the region, according to a report done by the Rocky Mountain Institute.¹²⁴ "It's got super thermal windows, an aerobic septic treatment system, active solar water heating, a geothermal heat-pump heating system, and a pair of 1,600-gallon rainwater tanks."¹²⁵ He has since added a wind turbine to save even more energy. He also built the house in the woods, cutting down a minimum of trees, and planted native buffalo grass in the back yard:

¹²⁴ Christina Page, "Not a Chip off the Old Block," <http://www.rmi.org/smc/print.php?stripImages=no>.

¹²⁵ Paul Westbrook, Interview by Don Wall, Allen, TX, tape recorded September 2006.

So we usually paid 10 or 12 dollars a month for water, while neighbors were shelling out three and four hundred a month over the summer,” Westbrook said in an interview for a news story.¹²⁶

On his own website, Westbrook writes, “We designed the house with four major goals: energy-efficiency, environmental friendliness, and low maintenance, and cost effectiveness.”¹²⁷ By achieving his own personal goals, Westbrook so impressed his bosses at Texas Instruments that the company used the same systems in the construction of a new billion dollar chip fabrication plant in Richardson, Texas. Using green technology, Texas Instruments will save \$4 million dollars a year in operating costs, when the building is put into service.¹²⁸ That also translates into a tremendous reduction in the production of greenhouse gases. For now, a downturn in the chip manufacturing business has put the project on hold.

In the August 26, 2002, issue of *Time* magazine, the one with the sunflower and the title, “How to Save the Earth” on the cover, journalists previewed a ten day conference of world leaders convening in Johannesburg to focus on sustainable development.¹²⁹ Within the series of articles about saving the Earth, a two-page spread called A Glimpse of Home presents a color image of the whole Earth as photographed from the Space Shuttle Challenger in 1984.¹³⁰ Former astronaut Kathryn Sullivan, the first American woman to walk in space writes how this image moved her to the point that she considered herself a citizen of planet Earth:

An incredibly beautiful tapestry of blue and white, tan, black and green seems to glide beneath you at an elegant, stately pace. But you’re actually going so fast that the entire map of the world spins before your eyes with each 90 minute orbit. After just one or two laps, you feel, maybe for the first time like a citizen of the planet. Will the immense power of global systems withstand the impact of humanity? Or is it possible that our collective actions will change the nature of our planet enough to cripple its ability to support life. I no longer believe that we can wait for all the scientific data

¹²⁶ Ibid.

¹²⁷ Westbrook; available at <http://www.enerjazz.com>.

¹²⁸ Don Wall, *News8 at Six*, WFAA-TV, 30 January 2006.

¹²⁹ “Special Report: How to Save the Earth,” *Time*, 26 August 2002.

¹³⁰ Ibid., pp.4-5.

needed to answer these questions conclusively. We must recognize immediately what it means to be citizens of this planet. It means accepting our obligation to be stewards of the Earth's life-giving capacities. As homeowners, we wouldn't neglect or damage our houses until they weren't fit to live in. Why would we do that with our planet?¹³¹

Problems and Deterrents

In so many places in the world, with war and famine and global threats of disease, and terrorism, environmental citizenship may seem trivial. Yet, the preservation of the Earth, the protection of air, water, and soil for the sustainability of humans and animals and vegetation may be the only salvation for longevity.

Still, Julian Agymeman, an assistant professor of urban and environmental policy and planning at Tufts University, and Bob Evans, director of the Sustainable Cities Research Institute in Newcastle, United Kingdom, find Environment Canada's definition of Environmental Citizenship is laudable but naïve.¹³²

It is both aspirational and superficial. The belief that all right-thinking people will eventually respond to rational debate and change individual patterns of behavior for the good of the environment seems a little misplaced coming from the environment agency of a country (Canada) with one of the highest consumption and pollution records in the world.¹³³

While it may be argued that support for environmental protection is a luxury of the well to do, essentially an elitist position, especially in America, deteriorating global conditions suggest that some level of universal environmental citizenship is a global necessity. It may not be that global democratization is attainable any earlier, but in the introduction to *Environmental Citizenship*, Dobson and Bell identify two key "stick and carrot" approaches to progress. "The idea is that financial rewards and penalties can be used to nudge individuals, as well as public

¹³¹ Ibid.

¹³² Andrew Dobson and Derek Bell, eds., *Environmental Citizenship* (Cambridge, Mass. The MIT Press, 2006), p. 199.

¹³³ Ibid.

and private corporations and institutions, toward environmentally responsible behavior.”¹³⁴ They go on to write:

It is our view that governments committed to sustainable development—that is, practically every government on the planet, at least formally—need to give some thought to changing attitudes as well as altering behavior, since both are key to achieving the object of sustainability.¹³⁵

The protection of precious resources, especially air, water and land is a global challenge, and fast becoming a global priority. Time and scarcity will make clear how precious and valuable those resources truly are.

Yet, if environmental citizenship is to be attained, it will be in spite of the lack of effort of the United States government. The U.S. has failed to ratify the Kyoto Protocols, which would cap limits on carbon dioxide emissions. As recently as April 3, 2007, the headline of the lead story in *The Dallas Morning News*, read, “Supreme Court blasts global warming inaction.”¹³⁶ Presented as a rebuke of President George W. Bush’s and his administration’s inaction on global warming, “The court, in a 5-4 ruling in its first case on climate change, declared that carbon dioxide and other greenhouse gases are air pollutants under the Clean Air Act.”¹³⁷ The article also derides a lack of effort such as the one in Texas, where this paper has been written. “In Texas, the state clean air act specifically authorizes the Texas Commission on Environmental Quality to regulate greenhouse gas emissions, but the state agency has taken no action and has no global warming policy.”¹³⁸ The Supreme Court ruling “could lead to more fuel efficient cars as early as next year.”¹³⁹

¹³⁴ Ibid., p. 1.

¹³⁵ Ibid., p. 4.

¹³⁶ From Staff and Wire Reports, “Supreme Court Blasts Global Warming Inaction,” *The Dallas Morning News*, Tuesday, 3 April 2007, p.1A.

¹³⁷ Ibid.

¹³⁸ Ibid., p. 5A.

¹³⁹ Ibid.

When it comes to enforcement of the Clean Air Act, the Environmental Protection Agency has allowed for delays, extended deadlines and taken inadequate action to meet the standards of its own environmental laws. Environmentalists blame the influence that corporations, some of the biggest polluters, have on elected officials in Washington. The EPA, which has an administrator, but not a cabinet level secretary, serves the course set by the current presidential administration.

Taking Action

The justification of environmental citizenship may be traced back to a few basic ideas about citizenship, such as Plato's idea of *the good*.¹⁴⁰ Callicott suggests that:

A good house or ship is one that is well ordered, that is, its parts are measured, proportioned and fitted together according to a rational design, the goodness of body (health, of soul (virtue), of society (justice), and of the cosmos as a whole, literally, the world-order is similarly defined.¹⁴¹

It could be said that Callicott when he wrote that was advocating for environmental citizenship, in which the environment must be protected for future generations. Hargrove often remarks that environmentalists who believe instrumentally that rain forests must be saved because they may hold the cure for cancer, might want to consider the idea that the rain forests might be saved simply for their intrinsic value, for their beauty, and the diversity of life on Earth.

At various times, such as Earth Day, global environmental summits, and annual shareholders meetings of large corporations, people hold public demonstrations and practice acts of civil disobedience. In May 2003, on the day before a shareholders meeting, members of the organization Greenpeace, some dressed in tigers costumes managed to climb on top of the ExxonMobil headquarters outside Dallas, and hang large banners on the roof, declaring

¹⁴⁰ Callicott, *In Defense of the Land Ethic*, p. 140.

¹⁴¹ Ibid.

ExxonMobil's headquarters to be "A global warming crime scene."¹⁴² The peaceful protestors were arrested, but they had made their point, as the stunt was widely covered by television, radio, newspapers, and websites.

Many people have interpreted this event as a relatively benign act of civil disobedience. Others say that Greenpeace and organizations such as the Friends of the Earth, Earth First! and People for the Ethical Treatment of Animals form a radical fringe to the environmental movement, and that the radical edge has been taken to extremes by alleged environmental terrorism groups, such as the mysterious ELF (Environmental Liberation Front), which has, in recent years, taken credit for bombing car lots full of new SUVs and burning down a ski resort. This level of environmental terrorism must be condemned by environmental citizens, and prosecuted to the fullest extent of the law.

Other nonprofit non-governmental agencies have a long tradition of promoting conservation or animal welfare, and increasingly, they are using their membership to influence government and society groups such as Sierra Club, National Audubon, the World Wildlife Fund, the Environmental Defense Fund, and the Natural Resources Defense Council. Some, such as Public Citizen and the Environmental Working Group, conduct their own research projects and present documentation to the government and the news media. Their studies often become the basis of news stories.

Citywide recycling programs, which are commonplace across America, were often started by a few concerned citizens who took it upon themselves to spread the word, lobby their city councils, and find grant money from the state or federal government. Increasingly citizens are influencing local, statewide, national, and global political and governmental decisions.

¹⁴² Jake Bernstein, "Government and Industry Declare Greenpeace Enemy Number One," *Texas Observer*, 3 April 2004; available at <http://www.texasobserver.org/article.php?aid=1627>.

Citizenship then becomes a consequence of involvement that crosses all boundaries within a community, or a society, including friends and enemies, managers and consumers, outlaws, and people simply not interested at all.

Environmentalism has traditionally been more closely related to the Democratic party, but this is also changing. Pamela Ragon, head of the Texas chapter of Republicans for Environmental Protection recently said:

Beginning in the late 1960s, the environment as a political cause was associated with the same group of people who were anti-war and anti-establishment. Being in favor of protecting the environment was viewed by many in the GOP as an assault against business and our free enterprise system. Environmental regulation seemed like one more way to infringe on personal liberty and the free use of private property. Today, Republicans are beginning to recognize that what happens to the environment cannot be separated from the health of our economy and the well-being of future generations. Democrats tend to believe that environmental problems can be remedied through more regulation. I'm not suggesting we don't need regulations. But I think as Republicans we recognize that a carrot is often more effective than a stick. Offering economic incentives can do more to achieve our environmental goals.¹⁴³

In 1995, Sarah Conn wrote a chapter in *Ecopsychology: Restoring the Earth, Healing the Mind*, entitled "When the Earth Hurts, Who Responds."¹⁴⁴

I have raised the question, "when the Earth hurts, who responds?" The answer, I believe, that each of us now experiences in some way—physically, psychologically, economically, or politically—the pain of the Earth. *The news* about environmental degradation is hard to avoid. Anyone who walks, breathes, looks, or listens knows that the air, the water and the soil, are being contaminated and that nonhuman species are disappearing at alarming rates. Yet the great majority of us, in this country and in much of the Western world, seem to be living our lives as if this were not so.¹⁴⁵

Like ostriches, we bury our heads in the sand. Notice, Conn uses the term, *the news*. People want information and news about ecological matters. They want it to be scientifically accurate, and their interest in environmental matters is on the increase.

¹⁴³ Pamela Ragon, "Point of Contact," *The Dallas Morning News*, 20 May 2007, p. P1.

¹⁴⁴ Theodore Roszak, Mary E. Gomes, and Allen D. Kanner, eds., *Ecopsychology* (San Francisco: Sierra Club Books, 1995), p. 156.

¹⁴⁵ *Ibid.*, p. 161.

In a CNN/Opinion Research Corporation Poll conducted in January 2007, seventy five per cent of those polled thought that the government should put new restrictions on emissions from cars and industrial facilities, such as power plants and factories in an attempt to reduce the effects of global warming.¹⁴⁶

In a CBS News Poll, also done in January 2007, seventy per cent of those polled said they thought that global warming is an environmental problem that is causing a serious impact now.¹⁴⁷

Conclusion

The concept of Environmental Citizenship has been described by Environment Canada. It focuses on responsibilities rather than on rights. The concept clearly places a burden on people in a free democratic society to take actions to protect the Earth and its resources. It embraces conservation. It condemns conspicuous consumption. Environmental citizenship applauds individuals, organizations, and corporations that exemplify the ideals of an environmental citizen. It supports civil disobedience, but stops short of supporting violence in the name of environmental protection. Environmental citizenship is a compromise position between the democratic status quo and radical environmentalists. It attempts to define citizenship in terms of doing good things to protect the environmental or ecological integrity of the community. While it does not overtly embrace socialism, it clearly supports the idea of people working together for the social good. Finally, environmental citizenship concepts challenge a free democracy to take responsibility for clean air, clean water, and clean soil, and to promote the idea, that living with these clean resources is a right, not just a privilege.

¹⁴⁶ Available at <http://www.pollingreport.com/enviro.htm>.

¹⁴⁷ Ibid.

CHAPTER 4

SPREADING THE MESSAGE

Teaching Citizenship and Reporting

A multi-pronged approach is necessary for environmental citizenship to succeed. Philosophy students and journalists have new opportunities to learn about the techniques and values of environmental citizenship and environmental reporting. Many people consider environmental ethics to be a new field.

In 2007, Hargrove developed and offered a course called *Environmental Citizenship* for graduate environmental ethics philosophy students at the University of North Texas. The purpose of the course is “an examination of environmental citizenship in contrast to environmental stewardship in the context of the culture war, environmental education, and the global environmental crisis.”¹⁴⁸ He writes on the Center for Environmental Philosophy website, “It [environmental citizenship] is now spreading around the world. It is an idea similar to and compatible with environmental stewardship in the Christian, Islamic, and Judaic traditions, but is not committed to or associated with any particular religion or culture.”¹⁴⁹

In one of the textbooks for that class, *Environmental Citizenship*, Andrew Dobson and Derek Bell, two British scholars who write and talk about environmental justice, green political thought, and the evolving concept of environmental citizenship, in the introduction, quote Rousseau, who wrote that “every individual as a man may have a private will contrary to, or different from, the general will that he has as a citizen.”¹⁵⁰ Adding their own comments, “One way of thinking about the contrast between market-and citizen-based routes to sustainability is in terms of Rousseau’s distinction, with the latter focusing on individuals making decisions in

¹⁴⁸ Eugene C. Hargrove, flier distributed to environmental ethics students at the University of North Texas.

¹⁴⁹ “Environmental Citizenship”; available at <http://www.cep.unt.edu/citizen.htm>.

¹⁵⁰ Dobson and Bell, *Environmental Citizenship*, p. 5.

virtue of what they perceive to be the common sustainability interest, rather than in terms of what they—as individuals—might or might not gain from pursuing particular course of action.”¹⁵¹ It is the beginning of the global paradigm shift, Richard Alpert, author of *Green Psychology*, wrote about.¹⁵²

Whereas older definitions of ecology spoke of the relationship of organisms to their environment, a systems approach goes beyond this dualistic conception, defining it as the study of the complex webs of interdependent relationships in ecosystems. Revolutionary thinking will put people and societies back into the equation.¹⁵³

Embracing ecology is a good approach to environmental reporting. That was one of the foundational concepts in the development of *Science and Environmental Reporting*, a graduate journalism course I designed and taught in 2003 to students in the graduate journalism school at the University of North Texas.¹⁵⁴ More than simply a class that taught how to report on the environment, my intention for the course was to teach students an ecological sense of reporting, the idea that environmental issues are often complicated, layered masses of information, with a huge number of details that find themselves linked together. In other words, an environmental story is seldom just an environmental science story. The complexities of covering issues, for example, air quality in Dallas, touch on a wide array of relationships.

In Dallas, the growing population puts more and more cars and trucks on the roads. Growth and sprawl means more diesel emissions from heavy equipment, in a community that already fails to meet the standards of the Clean Air Act. It has been documented that on ozone alert days more children are brought to the emergency rooms of local hospitals for breathing treatments, than on other days.. The rate of childhood asthma has been on the increase. Failure

¹⁵¹ Ibid.

¹⁵² Ralph Metzner, *Green Psychology: Transforming Our Relationship to the Earth* (Rochester, Vt: Park Street Press, 1999).

¹⁵³ Ibid., p. 172.

¹⁵⁴ Don Wall, “Science and Environmental Reporting,” unpublished manuscript, the Mayborn School of Journalism, the University of North Texas, spring 2003.

to comply with the Clean Air Act could mean federal sanctions, a cut in highway funds, and a hold on growth. The weather is a factor, since ozone is produced as the hot sun cooks the emissions from all the vehicles. Even in its most basic form, the air pollution story in Dallas/Fort Worth is an environmental science story, a health story, a business story, a community story, and a political story. All of these issues are linked ecologically. Policy, economic, and social decisions must be made.

As I wrote in the overview to *Special Problems: Science and Environmental Reporting*, “effective environmental reporting can go beyond fact gathering and opinion writing to engage the audience in an ongoing philosophical discussion about the value of nature and environmental stewardship.”¹⁵⁵

Environmental journalists face a problem of appearing biased; they are sometimes perceived as pro-environment. I would argue they are pro-environment, just as sports reporters are pro-sports, and business reporters are pro-business, and they have an ethical responsibility to be certain about their facts.

Michael Frome, a working journalist, in his book, *Green Ink*, defines environmental journalism as “writing with a purpose, designed to present the public with sound, accurate data as the basis of informed participation in the process of decision making on environmental issues.”¹⁵⁶

In many ways, culture is still shaped around the written word, and slowly, but surely, environmental journalism is gaining a foothold in the mainstream press. Environmental reporters, who have the underlying knowledge of environmental ethics, now have more command of social resources to influence culture.

¹⁵⁵ Don Wall, “Special Problems: Science and Environmental Reporting,” unpublished manuscript, PHIL 5910 (Spring 2003), p. 1.

¹⁵⁶ Michael Frome, *Green Ink* (Salt Lake City: University of Utah Press, 2001), p. ix.

In his book *Covering the Environmental Beat*, Lou Prato identifies a problem for journalists covering news stories about the environment.

...with the increasing variety and prominence of environmental stories comes the problem of telling them thoroughly, responsibly, and comprehensibly. The best of tomorrow's health, science and environmental reporters will become, in effect, more than mere reporters, guiding their audiences through a labyrinth of confusing and often conflicting data. Covering a vast subject like the environment will require a reporter to grapple with extremely complicated technical material. The reporter will need to develop an understanding of the scientific process that may easily go beyond anything learned in school. The reporter will be forced to sift through facts, opinions, claims, and counterclaims from government agencies, business entities, and a host of sophisticated special interests.¹⁵⁷

Engagement and Influence

There exists an evolving recognition that scientists and journalists can work together to engage the citizenry and influence policy. The Metcalf Institute of the University of Rhode Island and the organization, Environment Writer, backed by the National Science Foundation, have been holding a series of workshops called "Science Communications and the News Media," bringing together top climate scientists and prominent environmental journalists.¹⁵⁸ The workshops began in 2003. I attended the workshop at the Columbia University Lamont-Doherty Earth Observatory, June 1-3, 2005.

The workshop report about the Columbia gathering begins with the words, "The changing face of mainstream journalism in light of unprecedented competitive pressures significantly shaped discussions."¹⁵⁹ Overall, environmental coverage in mainstream publications and on television news has gone down. It's a trend that was first recognized in the early 1990s. Prato quoted an early survey in his book that "a 1991 nationwide RTNDF (Radio

¹⁵⁷ Lou Prato, *Covering the Environmental Beat* (Washington, D.C.: The Media Institute, 1991), pp. vii-viii.

¹⁵⁸ Bud Ward, "Science Communications and the News Media"; available at <http://environmentwriter.org/resources/reports/htm>.

¹⁵⁹ Ibid., available at http://environmentwriter.org/resources/reports/June05_workshop.htm.

Television News Directors Foundation) survey found only “26 percent of 102 television and radio news directors claimed to have a full-time environmental reporter. About three quarters (76 percent) said they regularly assign environmental stories to general-assignment reporters, weekend anchors or meteorologists. Fifty percent of the reporters responding had no formal training in environmental reporting at all.” A 1997 survey said a majority of those responding said understanding the issues is the most difficult part of covering environment and science stories.¹⁶⁰

If anything, the trend has continued. More major stations, including WFAA Dallas/Fort Worth, KING Seattle, and WCVB Boston have dropped their environmental beat reporters. It is difficult to know why, exactly. The topics are complicated and can’t always be told easily in one minute and thirty seconds. New developments in ongoing stories can sometimes be translated by editors into *just another global warming story*. The trend in local news is to tell very local, immediate stories, things that are happening now. A toxic spill that is putting a community in immediate danger will certainly be covered, usually by a general assignment reporter.

In his final report about the workshop, Bud Ward, editor of the journal *Environment Writer*, writes that “amidst what one scientist referred to as journalists’ angst over directions of the mass media and coverage of complex science and other issues, there were also positive signs of new ways to strengthen science communications and information sharing.”¹⁶¹

- Several leading university journalism programs, including that of workshop host Columbia University, have announced new efforts specifically aimed at strengthening reporting on complex issues including science.
- Newly established Web log or “blog” provides a “rapid-response” communications outlet by which some climate scientists hope to rebut what they see as common myths, misunderstandings, and flat-out errors.

¹⁶⁰ Prato, pp. 31-32.

¹⁶¹ Bud Ward, “Science Communications and the News Media”; available at [http://environmentwriter.org/resources/reports/June05_workshop, htm](http://environmentwriter.org/resources/reports/June05_workshop.htm).

- Some journalists may see in their news organizations' websites expanded opportunities for fulfilling an educational mission that may go beyond the media's traditional view of its news and information mission; and
- New technologies make it easier and less expensive to use color and graphics in conveying information better shared graphically than solely by [black ink and words on white paper.]¹⁶²

Today's scientists and journalists and environmental philosophers face similar problems, connecting with an audience that wants more information from a news and information distribution system that hasn't caught up to the wishes of the greater public, according to several polls. The former network broadcast executive, Dick Wald, now on the faculty at Columbia, said the decline in media coverage on environmental issues reflects the *dormant* nature of environment as a public policy issue.¹⁶³ Wald said the mainstream media are unlikely to give the issue substantially more play until and unless a major environmental disaster occurs or until a charismatic political leader emerges to champion the issue."¹⁶⁴

Sponsorship has also had an impact. In the late 1990s the sales side of the newspaper or television station began to influence news coverage. This started off as a way to increase sales. It also meant that stories that might discredit sponsors were either ignored or given less time or space. That trend has continued even more as newspaper circulation diminishes and television viewers are turning away from traditional local news programs.

While there may never be a single, unifying environmental ethic, the pioneering, evolving ability of environmental philosophers, and environmental journalists to engage increasing numbers of people in a thoughtful exchange of ideas is leading to citizen action. Policies and attitudes are changing. As the professional philosophers determine the foundations

¹⁶² Ibid.

¹⁶³ Dick Wald, "Science Communications and the News Media"; available at http://environmentwriter.org/resources/reports/June05_workshop.htm, p. 2-3.

¹⁶⁴ Ibid.

of the field, journalists help to popularize some of the philosophical ideas. If journalists help to spread information and ideas, like seed, the possibility exists that a new type of person can emerge, the still, very loosely defined environmental citizen.

The Information Zoom

A revolutionary change is being accelerated by a merging of global informational systems, environmental reporting, the new ecology, and environmental ethics. Recent polls done by ABC News/Washington Post/Stanford University, Gallup, Fox News/Opinion Dynamics, CNN/Opinion Research, CBS News, NBC News/Wall Street Journal all clearly show that people are concerned about clean water, clean air, global warming, and a healthy environment. This concern is developing as the global population continues to increase, and the access to information and the access to technology continues to expand.

Beginning in the 1950s, exploding in the 1960s, 1970s, 1980s, and still advancing in the present, in conjunction with the Internet and satellite high definition technology, I believe television and increasingly video media have been the most far-reaching and persuasive technological tools of the information age, always with the power to hook viewers and hold them, in much the same way that addicts get hooked on drugs.

In his introduction to the second edition of his landmark book, *Understanding Media*, Marshall McLuhan writes, “Any technology gradually creates a totally new human environment. Environments are not passive wrappings but active processes.”¹⁶⁵ He continues, “The medium is the message’ means, in terms of the electronic age, that a totally new environment has been created.”¹⁶⁶ McLuhan does not limit his views to modern technology. He writes about Eric

¹⁶⁵ Marshall McLuhan, *Understanding Media* (New York: A Mentor Book, 1964), p. ix.

¹⁶⁶ Ibid., p. viii-ix.

Havelock's *Preface to Plato*, how "By Plato's time the written word had created a new environment that had begun to detribalize man," and how "Plato transformed the old oral dialogue into an art form."¹⁶⁷

One might find interesting the way McLuhan broadens the definition of *environment*. In the largest sense, the word *environment* takes on a broad sweep of the concepts of space medium and place, not just a tangible place, such as an individual ecosystem or a neighborhood, but outer space and cyberspace, as well, the infinitely large and the infinitely small.

This broadened definition makes me wonder about digital ecology in the cyber world, a relatively newly discovered world, which may have always existed, if it does exist, but went undetected, until technology and imagination morphed smokestacks into computer chips, wafers, and nanobytes. The ecology of machines may include survival and extinction. Viruses, machine or man-made, can cause malfunctions. I feel I can say, with certainty, that human energy and imagination will uncover still more undiscovered widgets, as we contemplate "what we know, think we know, and don't yet know."¹⁶⁸ Technologically, television, including high definition television, the Internet, radio, magazines, newspapers, and even books are finding common ground through cable systems or via satellite.

Conclusion

Journalism schools now teach Science and Environmental Reporting as part of the curriculum. Several university philosophy departments not only teach Environmental Ethics, but Environmental Citizenship as well. Journalistic organizations, such as the Society for

¹⁶⁷Eric A. Havelock, *Preface to Plato* (Cambridge, Mass.: Belnap Press of Harvard University, 1963).

¹⁶⁸ [Http://www.engadget.com/2006/07/21/zune-what-we-know-think-we-know-and-dont-yet-know/](http://www.engadget.com/2006/07/21/zune-what-we-know-think-we-know-and-dont-yet-know/).

Environmental Journalists, are devoted to advancing science and environmental coverage in the mainstream media.

It has been an uphill battle. Even though television viewer and newspaper reader polls show that citizens say they want more coverage, the trend in the news media has gone away from issue oriented, in- depth stories to immediate reactions to events. Ozone pollution caused by cars and trucks may get some coverage, but car wrecks and traffic jams make the news every day.

Scientists and journalists are beginning to work together in workshops and even in interdisciplinary studies to move science and the environment to the front pages. Their efforts are beginning to work. In the great tradition of McLuhan's line, *the medium is the message*, the medium is evolving at an extraordinary pace. High definition television signals are now transmitted around the world using satellite technology, and the internet, and the cyber world create an environment where virtually anybody can communicate through blogs, emails and video messaging.

CHAPTER 5

CLIMATE OF CHANGE

Global Warming

Scientific evidence is making it more certain that global warming is at least in part a man-made, and threatening phenomenon, and the media is making it one of the top stories of the year, although daily environmental coverage is spotty at best.

In 1949, the German philosopher, Ludwig Wittgenstein wrote in his book, *On Certainty*,

“I know...” can’t be a mistake. And if that is so, then there can be an inference from such an utterance to the truth of an assertion. And here the form “I thought I knew” is being overlooked.¹⁶⁹

He goes on, “Certainty is as it were a tone of voice in which one declares how things are, but one does not infer from the tone of voice that one is justified.”¹⁷⁰

There have been many ways of saying, with increased certainty, that local, national, global, even intergalactic need for environmental ethics has never been greater, as the human population grows, the climate changes, and the quality of the air, the water and the soil diminishes.

Assertions about global warming are being made with more certainty. Ian Stewart, a British mathematician, and author of *Does God Play Dice? The Mathematics of Chaos*, writes about the butterfly effect, first described by Edward Lorenz, a meteorologist, who, in 1960 ran computer programs to work on the problem of weather prediction, and discovered an underlying order in apparently random data.¹⁷¹

¹⁶⁹ Ludwig Wittgenstein, *On Certainty*, ed. by G.E.M. Anscombe and G.H. von Wright (New York: Harper Torchbooks, 1972), p. 5e.

¹⁷⁰ Ibid., p. 6e.

¹⁷¹ Ian Stewart, *Does God Play Dice* (Blackwell: University of Warwick, 2002); available at <http://www.imho.com/grae/chaos/chaos/html>.

The flapping of a single butterfly's wing today produces a tiny change in the state of the atmosphere. Over a period of time, what the atmosphere actually does diverges from what it would have done. So, in a month's time, a tornado that would have devastated the Indonesian coast doesn't happen. Or maybe one that wasn't going to happen does.¹⁷²

The ferocity and frequency of tornados, earthquakes, hurricanes, and tsunamis were once discussed as chance geological or meteorological happenings, or as acts of God. However, in the 1890s, a Swedish chemist, Svante Arrhenius, issued a prophetic warning, that if humanity keeps pumping carbon dioxide (a byproduct of combustion) into the air, as it has done since the Industrial Age began around 1850, the level of heat trapping gas in the atmosphere could double and dramatically raise temperatures.¹⁷³ Scientists are becoming increasingly certain that there is a connection between the intensity and ferocity of meteorological events and global warming, first described by Arrhenius. Environmental citizenship may or may not be able to do anything about that increasing certainty, but the environment is increasingly affecting public policy and debate.

It may be fair to say that the global warming story has moved at the speed of a glacier. However, natural disturbances like the tsunamis of 2005 and Hurricane Katrina of 2004 exemplify what's at stake. The victims, the people who were killed or displaced, are and were as much a part of the ecology as the rains and the ocean swells. The fact that people built those communities in areas that are now considered in harm's way is also part of the ecological equation. Global warming increases the likelihood that more coastal areas, including some parts of southern Florida will be under water.¹⁷⁴

Al Gore's Oscar for *An Inconvenient Truth* put global warming on the front pages again. It may be the next watershed moment for conservation and environmental awareness, perhaps as

¹⁷² Ibid.

¹⁷³ Richard Stengel, "The Global Warming Survival Guide," *Time*, 9 April 2007.

¹⁷⁴ Ibid.

profound as *Silent Spring*. The documentary film explains the ideas behind the problems and lays out pragmatic solutions.

A clear example of the impact is the cover of the April 9, 2007, edition of *Time* magazine, "The Global Warming Survival Guide: 51 Things You Can Do to Make a Difference." The cover evokes the essence of environmental citizenship. As the managing editor writes: "To our readers a plan of action: now that the threat of global warming is more widely understood, our special issue shows how we can all do something about it."¹⁷⁵ Richard Stengel goes on to write that "*Time* has now published six covers and hundreds of separate stories addressing the steadily worsening climate crisis."¹⁷⁶ *Time*'s first cover on global warming appeared in 1987, five years after Caras and Wall did their first stories about climate change on ABC News.

In November 2005, at the University of California Berkeley Graduate School of Journalism, noted scientists and journalists gathered to talk about science communication and the news media, with an emphasis on telling the global warming story, which has been a geophysical science story and a political science story at the same time. Here is a description of the presentation by the noted Berkeley linguist, George Lakoff, the author of the 2004 book *Don't Think of an Elephant*:

George Lakoff's presentation on the second day of the workshop stimulated a lively interchange on how frames affect press coverage of climate change, and how journalists and scientists can benefit from understanding how frames work. Frames, Lakoff explained, are mental structures that shape the way we as individuals see the world. Frames are created by movements and institutions. "Unless you come up with a unified way of approaching misinformation, you are going to lose in the court of public opinion," he said. Journalists and scientists both have frames. Lakoff said. "Most responsible journalists have chosen their stories for the public good-- a progressive frame. Journalists who have dedicated themselves to a profession for the public good have a frame. People who accuse media of being liberal in that regard are right. What's crucial is that

¹⁷⁵ Ibid.

¹⁷⁶ Ibid.

everybody has both frames. Progressive media have been intimidated to the point of ignoring their frames in the interest of 'fairness. Political and economic policy dialogue uses frames and metaphors rather than logic, according to Lakoff. There are common everyday frames, change: "You can't change the weather." Scientists who attempt to argue against such a frame with terms like "junk science" or "sound science," he explained, can actually end up reinforcing the initial frame, in the end bolstering a perspective they themselves meant to contest. Similarly, news media notions of "fairness" and "balance" can help perpetuate the popular notion of continuing widespread scientific controversy over scientific matters of climate change about which mainstream scientists share a common view. Journalists, Lakoff explained, must confront a perceived balance frame where fairness equates to balance rather than necessarily to truthfulness or accuracy. Balance thereby is represented as giving relatively equal attention, or at least unquestioning coverage of, two sides of an argument, without sufficient regard for the technical merits of those differing perspectives. Lakoff advised journalists and scientists that both must thoroughly understand how frames guide their own thinking and that of their intended audience.¹⁷⁷

Mark Trahan, Seattle Post-Intelligencer editorial page editor, added, "Fairness, or journalistic balance, is the obstacle...It's time for journalists...to declare outright that outright truth is a higher calling than fairness."¹⁷⁸

Finally, climate change, global warming has become the story—told by journalists who merge scientific evidence, reason, along with fears and human emotions, combined with the essence of environmental ethics, to evoke a new way of looking at the Earth. It is essentially an example of applied journalism, bringing together facts and environmental philosophy to turn environmentalism into citizenship to influence the free market economy, politics, and national policy.

In the *Dallas Morning News* on Sunday, April 22, 2007, Earth Day, the retail company, Home Depot placed a four-page flier Introducing Eco Options, a New, Easier Way to Improve Your Home and the Environment, One Choice at a Time.¹⁷⁹ The company chose to give away

¹⁷⁷ Bud Ward, "Journalists/Scientists Communications and the News Media Workshop," University of California Berkeley Graduate School of Journalism, Nov. 6-8, 2005; available at http://www.environmentwriter.org/scienceandthenews/docs/workshops_report.htm.

¹⁷⁸ Ibid.

¹⁷⁹ "Eco Options," Home Depot, *The Dallas Morning News*, 22 April 2007, advertising.

one million compact fluorescent light bulbs, claiming, “This giveaway will result in a total of: \$12 million savings in annual energy costs, reduction of 196 million pounds of carbon dioxide emissions, the equivalent of removing over 70,000 cars from American highways.”¹⁸⁰

Commerce has discovered the environmental preferences of a growing number of citizens. In the same newspaper, in a section called Points, there is an article about how global warming activist Laurie David and singer Sheryl Crow spent two weeks canvassing the country in a bio-diesel bus and talking to college students about the threat posed by climate change.¹⁸¹ There’s a photograph of the bus, which features the slogan, Join the Virtual March at stopglobalwarming.org.

In yet another article, in the same paper, in a section called Dateline, there is a story with the headline Campaigns Get Down to Earth.¹⁸²

Green is in. Presidential campaigns are buying energy-efficient light bulbs and recycled paper, and they’re switching from Styrofoam to washable mugs to keep aides caffeinated and planet-friendly. Global warming is emerging as a top-tier campaign issue, and presidential wannabes are outbidding one another for the hearts of voters worried about rising fuel costs, rising sea levels and a depleted ozone layer.

Sagoff is concerned with “two rather abstract roles we all play, namely, the role of citizen and role of consumer, and he suggests that ecological systems can be valued because of their history, their beauty, their complexity and the aesthetic and cultural significance they have for us.”¹⁸³

As a citizen, I am concerned with the public interest, rather than my own interests. In my role as a consumer, in other words, I concern myself with personal or self-regarding wants and interests.¹⁸⁴

¹⁸⁰ Ibid.

¹⁸¹ Colleen McCain Nelson, “Driving Home A Point,” *The Dallas Morning News*, 22 April 2007, advertising, p. 4P.

¹⁸² Todd J. Gillman, “Campaigns Get Down to Earth,” *The Dallas Morning News*, 22 April 2007, p. 15A.

¹⁸³ Mark Sagoff, *The Economy of the Earth* (Cambridge, UK: Cambridge University Press, 1996), p. 8.

¹⁸⁴ Ibid.

Well-trained environmental journalists have an opportunity to present ideas about a new ecological paradigm, environmental ethics, and valuing nature and wildness, the way art is valued.

Environmental Citizenship Beginnings

Philosophical arguments, discussed by environmental philosophers, and written about by environmental journalists, are now part of the mainstream practical discussions of local communities.

Consider Flower Mound, Texas. In 1996, I produced and reported a series for WFAA, called *Surviving Gridlock*.¹⁸⁵ Using transportation studies, I showed how urban sprawl and population growth would create such horrendous traffic jams that people would spend an inordinate amount of time sitting in traffic. The story not only documented sprawl, but it identified the less recognized, but growing phenomenon of rural encroachment. People had moved away from the metropolitan areas of cities to more rural towns, such as Flower Mound, in search of a less cluttered, hectic lifestyle—more like the communities the Baby Boomers grew up in when their parents left cities for a better life in the suburbs.

Gridlock has also reached the suburbs. The population of Collin and Denton Counties – now about 700 thousand people – will double to a million and a half within twenty years. Farm to market roads are overloaded thoroughfares. Towns like Flower Mound used to be the country. No more.¹⁸⁶

Flower Mound took steps to curb growth, such as requiring larger lots for new homes, and restricting the amount of commercial businesses that could establish themselves in town.

On April 21, 2007, *The Dallas Morning News* included the headline, “Growth Philosophies Drive FM Council Races.” In a race for town council seats, the challengers were

¹⁸⁵ Don Wall, “Surviving Gridlock,” *WFAA-TV*, Dallas/Fort Worth, 14 February 1996.

¹⁸⁶ *Ibid.*

arguing that “the town has stifled growth, choked the budget and scared away high-end retail projects. The issues meld as residential growth encourages retail and more retail brings in more money.”¹⁸⁷

“We need to get rid of the Gestapo-like tactics being used to discourage good developers from coming in and creating an environment, where people want to build here,” said one of the challengers.¹⁸⁸

In the final chapter of *Environmental Citizenship*, Stephen Gough and William Scott write a section called “Promoting Environmental Citizenship through Learning: Toward a Theory of Change.”¹⁸⁹

This chapter seeks to articulate a credible theory of change linking learning, environmental citizenship, and sustainable development. In doing so, its main purpose is to make a (necessarily partial) contribution to the understanding of the wider potential processes of democratization.¹⁹⁰

They describe a co-evolution of society and its environment, which promotes debate and learning, and the necessity of improving our understanding of science, while reexamining values.

The writers make a distinction of clarity:

when we really know something (we might decide to teach it; when we really don’t (we might decide to teach the parameters of the doubt involved); the need to sometimes make important choices in the absence of incontestable (natural or social) scientific guidance. It is also clear that complexity, uncertainty, risk, and necessity are ineluctable facets of a co-evolutionary understanding that cannot be wished (or educated) away.¹⁹¹

The authors diagram the complex relationships between society and the citizen and between nature and the environment, examined through a process of learning, and leading to environmental and social change.¹⁹²

¹⁸⁷ Jay Parsons, “Growth Philosophies Drive FM Council Races,” *The Dallas Morning News*, 21 April, 2007.

¹⁸⁸ Ibid.

¹⁸⁹ Dobson and Bell, *Environmental Citizenship*, p. 263.

¹⁹⁰ Ibid.

¹⁹¹ Ibid., p. 265.

¹⁹² Ibid., p. 276.

In the most optimistic of all possibilities, the essence of the philosophy of *the good*, global cooperation would exist to reduce suffering and promote world peace. While that would certainly seem to be impossible to achieve, the essence of freedom and citizenship, at least as defined by President Kennedy, for the Baby Boomers, is striving for the development of a good society.

Philip Shabecoff, the former chief environmental reporter for the *New York Times*, in his second environmental book, *A New Name for Peace*, quotes Stephen Viederman, president of the Jesse Smith Noyes Foundation, for redefining sustainable development, not as a matter of applied economics or science and technology, but as a *social construct*.¹⁹³

Sustainability is a participatory process that creates and pursues a vision of community that makes prudent use of all its resources – natural, human, human-created, social, cultural, scientific, etc. Sustainability seeks to ensure, to the highest degree possible, that present generations attain a high degree of economic security and can realize democracy and popular participation in control of their communities, while maintaining the integrity of the ecological systems upon which all life and all production depends, while assuming responsibility to future generations with the wherewithal for their vision, hoping they have the wisdom and intelligence to use what is provided in an appropriate manner.¹⁹⁴

That level of sustainability would require extreme paradigm shifts to embrace new concepts such as an ecology of nations, along with economic and technological ecology. These topics are the focus of the United Nations Educational, Scientific and Cultural Organization (UNESCO), which states as its goal: “to build peace in the minds of men.”¹⁹⁵

UNESCO is working to create the conditions for genuine dialogue based upon respect for shared values and the dignity of each civilization and culture. This role is critical, particularly in the face of terrorism, which constitutes an attack against humanity. The world urgently requires global visions of sustainable development based upon observance of human rights, mutual respect and the alleviation of poverty, all of which lie at the heart of UNESCO’s mission and activities.¹⁹⁶

¹⁹³ Philip Shabecoff, *A New Name For Peace* (Hanover, N.H.: University Press of New England, 1996), p. 204.

¹⁹⁴ Ibid.

¹⁹⁵ “What is it? What does it do?” *United Nations Educational, Scientific and Cultural Organization*; available at http://portal.unesco.org/en/ev.php-URL_Id=3328&URL_Do=Do_PRINTPAGE&URL_SECTIO.

¹⁹⁶ Ibid.

In the final chapter of Hargrove's book, *Foundations*, he writes how scientific and aesthetic values are as important as economic values.

When we have a public policy toward nature in general that reflects this kind of approach, we will be a society that takes pride in the existence of nature independent of the selfish pleasures that may be drawn from it or the money that can be made by exploiting and destroying it – in short, we will be a society that lives in accordance with an environmental ethic.¹⁹⁷

Story Evolution

For several decades climate scientists have been measuring the gradual warming of the Earth's atmosphere. These studies have been followed closely by not only the world's scientists but the world's political leaders, such as President Bush and British Prime Minister Tony Blair. Whenever journalists did a story about global warming, they were obliged to include not only the latest research, but a clear rebuttal as well. As climate scientists increasingly found evidence that global warming is caused, at least in part, to an increase in carbon dioxide, due primarily to the activities of human beings (in the form of combustion), a strong counter-scientific group voiced concern about flimsy science, the natural cycles of the Earth and a propaganda machine, pushed by environmental radicals, who want to stop progress, in favor of regression. Journalists had a very difficult job, especially as the scientific evidence supporting global warming began to outweigh the spin of the anti-global warming faction. Then finally, on the political front, President Bush, after disputing its existence, acknowledged in 2006 that global warming is taking place, a position that White House correspondents called a radical shift.

I have said consistently that global warming something is a serious problem. There is a debate over whether it's manmade or naturally caused. We ought to get beyond that debate and start implementing the technologies necessary to enable us to achieve a couple of big objectives. One, be good stewards of the environment, and two

¹⁹⁷ Hargrove, *Foundations*, p. 214.

become less dependent on foreign sources of oil for economic reasons and for national security reasons.¹⁹⁸

Environmental citizens, with the support of environmental journalists and environmental philosophers have had a great deal to say about global warming, and in unprecedented ways their message is being heard—through award winning documentary films, such as *An Inconvenient Truth* and a news media that has finally caught on to the idea that global warming is one of the biggest stories of the Baby Boomer generation.

Conclusion

In “Song of the Open Road,” a poem in *Leaves of Grass*, published in 1855, Walt Whitman wrote:

The earth never tires; The earth is rude, silent, incomprehensible at first—Nature is rude and incomprehensible at first; be not discouraged—keep on—there are divine things, well envelop’d; I swear to you there are diving things more beautiful than words can tell.¹⁹⁹

The poem begins with Whitman’s declaration as a citizen, on a journey, embracing the world. “Afoot and light-hearted, I take to the open road, / Healthy, free, the world before me, / The long brown path before me, leading wherever I choose.”²⁰⁰

Walt Whitman was a pioneering citizen, with a strong commitment to nature. He wrote about freedom and the beauty of the natural world and he embraced America and its democracy. He even took citizen action by visiting wounded soldiers during the Civil War. In his poem, “America,” written in the 1880s, Whitman wrote:

Centre of equal daughters, equal sons,
All , all alike endear’d, grown, ungrown, young or old,
Strong, ample, fair, enduring, capable, rich.

¹⁹⁸ President George W. Bush to reporters, 26 June 2006; available at <http://thinkprogress.org/2006/06/26/bush-debate-climate/>.

¹⁹⁹ Walt Whitman, “Song of the Open Road,” *The Portable Walt Whitman* (New York: Viking Press, 1969), p. 208.

²⁰⁰ *Ibid.*, p. 201.

Perennial with the Earth, with Freedom, Law and Love,
A grand, sane towering, seated Mother,
Chair'd in the adamant of Time.²⁰¹

The idealism of the sixties and seventies was replaced by the material worlds of the eighties, nineties, and the beginnings of the twenty-first century. The naïve dreams of a safer, more peaceful world have always been shattered by the realities of assassinations, war, famine, despotism, radical fundamentalism, and terrorism. Not only are the people of the world threatened, but so is the Earth, itself. Still the greatest experiment in freedom and democracy survives. Freedom still rings in America, freedom of ideas, freedom of the press, religious freedom, freedom of opportunity. By virtually any standards, one can say, with some certainty, that the American citizen holds a unique place in the world, one where rights and responsibilities flow together like the forks of a river.

If the concept of environmental citizenship is to take hold and flourish, or even help to make improvements in the plight of the Earth and its inhabitants, then the American environmental citizen must be the standard bearer. The US has a great deal to learn from Environment Canada, and the national policies of a great number of European countries, such as Germany. The US must get its own *house* in order, and as technology develops, new cleaner technology must be shared with the developing world, especially in places such as China, India, and Russia, which are going through their own industrial revolutions, using outdated equipment which will only make global warming worse.

Watershed moments, such as the publication of Aldo Leopold's *The Land Ethic*, Rachel Carson's *Silent Spring*, the great undersea films of Jacques-Yves Cousteau, landmark legislation such as the Endangered Species Act, the Clean Air Act, the Clean Water Act, calamities such as

²⁰¹ Walt Whitman, "America," *Leaves of Grass First and "Death-Bed" Editions* (New York: Barnes and Noble Classics, 2004), pp. 638-639.

Three Mile Island and Love Canal, intense natural disasters such as Hurricane Katrina, along with the landmark film, *An Inconvenient Truth*, have inspired philosophers and journalists to see the Earth in new ways.

Civilization is now for the first time collectively considering a new approach to life on Earth, a path of sustainability and environmental protection which has the potential to influence the concept of survivability.

Environmental philosophers and environmental reporters have been among the pioneers of this potential paradigm shift. They are setting the *Earth Tones*. Through the power of words, ideas, and actions, environmental citizenship can change the world.

BIBLIOGRAPHY

“America’s Long Vigil: How Television Covered the Kennedy Assassination.” *TV Guide*, January 25, 1965. <http://members.aol.com/jeff570/tvgifk.html> (28 May 2007).

Bernstein, Jake. “Government and Industry Declare Greenpeace Enemy Number One.” *Texas Observer*. April 3, 2004. <http://www.texasobserver.org/article.php?aid=1627> (6 Jan. 2007).

Berry, Thomas. *The Dream of the Earth*. San Francisco: Sierra Club Books, 1988.

Bly, Robert. *Iron John*, New York: Addison-Wesley Publishing Company, 1990.

Bock, Ryan. “What We Know, Think We Know, and Don’t Yet Know.” *Zune*. 21 July 2006. <http://www.engadget.com/2006/07/21/zune-what-we-know-think-we-know-and-dont-yet-know/> (8 Jan. 2007).

Callicott, J. Baird. *In Defense of the Land Ethic*. Albany: State University of New York Press, 1989.

Caras, Roger and Don Wall. “Valley of the Monarchs.” *ABC World News Tonight*, 1981.

Carson, Rachel. *Silent Spring*. Boston: Houghton Mifflin Company, 1962.

Center for Environmental Philosophy. <http://www.cep.unt.edu/citizen.htm> (3 Feb. 2006).

Cousteau, Phillipe. introduction to Jacques-Yves Cousteau. *Silent World*. New York: Ballantine Books, 1953. <http://www.cnn.com/WORLD/9706/25/cousteau.obit/index.html> (8 Dec. 2006).

Dobson, Andrew and Derek Bell. *Environmental Citizenship*. Cambridge, Massachusetts: The MIT Press, 2006.

Dupont company slogan. 1935. *Through Chemistry*. http://heritage.dupont.com/touchpoints/tp_1939/overview.shtml (23 April 2007).

Earth Works Group. *50 Simple Things You can do to Save the Earth*. Berkeley: Earthworks Press, 1989.

Eblen and Eblen. *The Encyclopedia of the Environment*. Boston: Houghton Mifflin, 1994.

Eco Options, Home Depot advertisement. *The Dallas Morning News*. 22 April 2007.

Emerson, Ralph Waldo. *Selected Writings of Ralph Waldo Emerson*. New York: Random House, 1940.

Environment Canada. <http://www.ns.ec.gc.ca/udo/who.html> (19 Feb. 2006).

- Evans, Bergen. *Dictionary of Quotations*. New York: Avenel Books, 1968.
- Frome, Michael. *Green Ink*. Salt Lake City: University of Utah Press, 2001.
- Gillman, Todd J. "Campaigns get down to Earth," *The Dallas Morning News*. 22 April 2007.
- Grillon, Joy. http://capita.wustl.edu/ME567_Informatics/concepts/global.html (13 Jan. 2007).
- Hargrove, Eugene C. "A Very Brief History of the Origin of Environmental Ethics for the Novice." <http://www.cep.unt.edu/novice.html>. (2 Oct. 2006).
- Hargrove, Eugene. "Environmental Citizenship." <http://www.cep.unt.edu/citizen.htm>. (2 Oct. 2006)
- Hargrove, Eugene C. Flier distributed to environmental ethics students in a class at the University of North Texas, 2006.
- Hargrove, Eugene C. *Foundations of Environmental Ethics*. Denton, Tex.: Environmental Ethics Books, 1989.
- Hargrove, Eugene C. paraphrasing Aldo Leopold, "Environmental Citizenship." <http://www.cep.unt.edu/citizen.htm> (7 Oct. 2006).
- Hargrove, Eugene C. paraphrasing Mark Sagoff, "Environmental Citizenship." <http://www.cep.unt.edu/citizen.htm> (17 Oct. 2006).
- Hargrove, Eugene C. "Weak Anthropocentric Value." *The Monist* 75, no. 2, April 1992.
- Hunter, Robert and Bob Weir. "Sugar Magnolia/Sunshine Daydream." *A Box of Rain*. New York: Penguin Books, 1993.
- ID: 3328. "What is It? What Does It Do?" *United Nations Educational, Scientific and Cultural Organization*. http://portal.unesco.org/en/ev.php-URL_Id=3328&URL_Do=Do_PRINTPAGE&URL_SECTIO. (8 Jan. 2007).
- Kennedy, President John F. *Inauguration Speech*, Washington, D.C.: 20 January 1961. <http://www.Bartleby.com/124/press56.html-29k> (16 Dec. 2006).
- Lear, Linda. Introduction to *Silent Spring*, 40th Anniversary Edition. Boston: Mariner Books, 2002.
- Lear, Linda. *Rachel Carson: Witness for Nature*. New York: Henry Holt, 1997. <http://www.washingtonpost.com/wp-srv/style/longterm/books/chaps1/rachelcarson.htm> (18 Nov. 2006).

Lear, Linda. www.brainyquote.com/quotes/authors/liberty_hyde_biley.html-19k (22 Nov. 2006).

Leopold, Aldo. *The Land Ethic, A Sand County Almanac with Essays on Conservation from Round River*. New York: Ballantine Books, 1970.

McLuhan, Marshall. *Understanding Media*. New York: A Mentor Book, 1964.

Metzner, Ralph. *Green Psychology: Transforming Our Relationship to the Earth*. Rochester, Vt.: Park Street Press, 1999.

Miller, Alan S. *Gaia Connections* Savage. Md: Rowman and Littlefield Publishers, 1991.

Nelson, Colleen McCain. "Driving Home a Point." *The Dallas Morning News*, 22 April 2007.

Nixon, President Richard. *State of the Union Address*, Washington, D.C., January, 1970. <http://www.infoplease.com/t/hist/state-of-the-union/183.html>.

Page, Christina. "Not a Chip off the Old Block," <http://www.rmi.org/smc/print.php?stripImages=no> (4 Apr. 2007).

Parsons, Jay. "Growth Philosophies drive FM council races," *The Dallas Morning News*. 21 April 2007.

Pickett, Stewart T.A., V. Thomas Parker and Peggy L. Fiedler. "The New Paradigm in Ecology: Implications for Conservation Biology above the Species Level." *Conservation Biology*. New York: Chapman and Hall, 1992.

Pickett, S.T.A. and P.S. White. *The Ecology of Natural Disturbance and Patch Dynamics*. San Diego: Academic Press, 1985.

Plumwood, Val. *Feminism and the Mastery of Nature*. London: Routledge, 1997.

Prader, Ross. Interview by Don Wall. April, 2007.

Prato, Lou. *Covering the Environmental Beat*. Washington, D.C.: The Media Institute, 1991.

Rolston, Holmes, III. *Environmental Ethics*. Philadelphia: Temple University Press, 1988.

"Roosevelt Rotunda." <http://www.amnh.org/museum/welcome/contact.html?src=footer> (23 Apr. 2007).

Roszak, Theodore, Mary E. Gomes, and Allen D. Kanner. *Ecopsychology*. San Francisco: Sierra Club Books, 1995.

Safire, William. *Safire's Political Dictionary*. New York: Ballantine Books, 1978.

Sagoff, Mark. "Fact and Value in Ecological Science." *Environmental Ethics*, vol. 9, Summer, 1985.

Sagoff, Mark. *The Economy of the Earth*. Cambridge: Cambridge University Press, 1996.

Shabecoff, Philip. *A Fierce Green Fire*. New York: Hill and Wang, 1993.

Shabecoff, Philip. *A New Name for Peace*. Hanover, N.H.: University Press of New England, 1996.

"Space Race," an exhibition at the Smithsonian National Air and Space Museum, Washington, D.C.: featuring President Dwight D. Eisenhower, 1958.
<http://www.nasm.si.edu/exhibitions/gall114/gall114.htm> (23 April 2007).

"Special Report: How to Save the Earth." *Time*, August 26, 2002.

Staff and Wire Reports. "Supreme Court Blasts Global Warming Inaction." *The Dallas Morning News*. Tuesday, April 3, 2007.

Stanley, Ralph Ross. "Spanning the globe" was part of the introduction to *ABC's Wide World of Sports*. [http://en.wikipedia.org/wiki/Wide_World_of_Sports_\(US_TV_series\)](http://en.wikipedia.org/wiki/Wide_World_of_Sports_(US_TV_series)) (10 Mar. 2007).

Steffen, Lloyd H. "In Defense of Dominion." *Environmental Ethics*, vol. 14, Spring, 1992.

Stengel, Richard. "The Global Warming Survival Guide." *Time*. 9 April 2007.

Stewart, Ian. *Does God Play Dice?* Blackwell, Malden, Mass.: 2002.
<http://www.imho.com/grae/chaos/chaos/html> (18 Feb. 2007).

Thoreau, Henry David. *Cape Cod*. New York: Thomas Y. Crowell Company, 1966.

Thoreau, Henry David. *The Maine Woods*. New York: Crowell, 1961.

Train, Russell. Interview by Bill Lawrence. Florida. Videotaped for Botanical Research Institute of Texas, 2005.

"United Communities of Spirit." <http://origin.org/ucs/doc/efm?=1&ups=2&edit=3176&fi=1071> (8 Mar. 2007).

Wald, Dick. "Science Communications and the News Media."
http://environmentwriter.org/resources/reports/June05_workshop.htm (9 Mar. 2007).

Wall, Donald. "Scientists Flock to Study Beached Whale." *New York Times*. Tuesday, 10 April 1979.

Wall, Don. *News8 at Six*. WFAA-TV. 30 January 2006.

Wall, Don. "Science and Environmental Reporting." Unpublished manuscript. Mayborn School of Journalism. University of North Texas. (Spring 2003).

Wall, Don. "Special Problems: Science and Environmental Reporting." Unpublished manuscript. Environmental Ethics 5910. Fall, 2003.

Wall, Don. "Surviving Gridlock." *WFAA-TV*. Dallas/Fort Worth: 14 February 1996.

Ward, Bud. "Journalists/Scientists Communications and the News Media Workshop." http://environmentwriter.org/scienceandthenews/docs/workshops_report.htm (9 Mar. 2007).

Ward, Bud. "Science Communications and the News Media." [http://environmentwriter.org/resources/reports/June05_workshop,htm](http://environmentwriter.org/resources/reports/June05_workshop.htm) (9 Mar. 2007).

Westbrook, Paul. Interview by Don Wall. Allen, Tx, tape recorded September, 2006.

Westbrook, Paul. <http://www.enerjazz.com> (10 Mar. 2007).

White, Lynn Jr. "The Historical Roots of Our Ecological Crisis." *Ecology and Religion in History*. Edited by David and Eileen Spring. New York: Harper and Row, 1974.

Whitman, Walt. "Song of the Open Road." *The Portable Walt Whitman*. New York: Viking Press, 1969.

Whitman, Walt. "America." *Leaves of Grass First and "Death-Bed" Editions*. New York: Barnes and Noble Classics, 2004.

Wilson, Edward O. afterward to *Silent Spring*, 40th Anniversary Edition. Boston: Mariner Books, 2002.

Wittgenstein, Ludwig. *On Certainty*. edited by G.E.M. Anscombe and G.H. von Wright. New York: Harper Torchbooks, 1972.

"World Union of Deists." http://deism.com/deism_defined.htm (3 Apr. 2007).

Worster, Donald. *Nature's Economy*. New York: Press Syndicate of the University of Cambridge, 1994.